United States Government Stewardship Information (Unaudited) for the Years Ended September 30, 2004, and September 30, 2003

Stewardship Responsibilities

The social insurance programs were developed to provide income security and health care coverage to citizens under specific circumstances as a responsibility of the Government. Because taxpayers rely on these programs in their long-term planning, stewardship information should indicate whether they are sustainable under current law, as well as what their effect will be on the Government's financial condition. The resources needed to run these programs are raised through taxes and fees. Eligibility for benefits rests in part on earnings and time worked by the individuals. Social Security and Medicare benefits are generally redistributed intentionally toward lower-wage workers (i.e., benefits are progressive). In addition, each social insurance program has a uniform set of entitling events and schedules that apply to all participants.

Statements of Social Insurance

These statements present estimates for several key indicators of the status of the Social Security, Medicare, Railroad Retirement, and Black Lung programs. The estimates are actuarial present values of cashflow projections as set forth in the relevant Trustees' reports and in the relevant agency performance and accountability reports for Railroad Retirement and Black Lung.[1] For example, for the OASDI program as of January 1, 2004, the present value of costs is projected to exceed the present value of cash income by $5,229 billion over the next 75-years. That is the amount that, if invested at the beginning of the period, together with interest earnings, would be just enough to cover excess costs over 75 years. The cashflow projections are analyzed in more detail in later sections. The estimates in the statements below are for persons who are participants or eventually will participate in the programs as contributors (workers) or beneficiaries (retired workers, survivors, and disabled) during a 75-year time period. Refer to the footnotes at the bottom of these statements for the projection valuation date.

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[1] Present values recognize that a dollar next year is worth less than a dollar today, because a dollar today could be saved and earn a year's-worth of interest. To calculate a present value, future amounts are thus reduced using an assumed interest rate, and those reduced amounts are summed. The resulting present value is the amount that would have to be put in the bank today at the assumed interest rate to fund the future cashflows.

United States Government
Statements of Social Insurance
Present Value of Long-Range (75-Years, except Black Lung) Actuarial Projections

(In billions of dollars)	2004	2003	2002	2001	2000
Federal Old-Age, Survivors and Disability Insurance (Social Security):					
Contributions and Earmarked Taxes from:					
Participants who have attained age 62	411	359	348	309	266
Participants ages 15-61	14,388	13,576	13,048	12,349	11,335
Future participants (under age 15 and births during period)	12,900	12,213	11,893	11,035	10,088
All current and future participants	27,699	26,147	25,289	23,693	21,689
Expenditures for Scheduled Future Benefits for:					
Participants who have attained age 62	4,933	4,662	4,401	4,256	4,020
Participants ages 15-61	22,418	21,015	20,210	18,944	17,217
Future participants (under age 15 and births during period)	5,578	5,398	5,240	4,700	4,297
All current and future participants	32,928	31,075	29,851	27,900	25,534
Present value of future expenditures less future revenue	5,229[1]	4,927[2]	4,562[3]	4,207[4]	3,845[5]
Federal Hospital Insurance (Medicare Part A):					
Contributions and Earmarked Taxes from:					
Participants who have attained eligibility age	148	128	125	113	97
Participants who have not attained eligibility age	4,820	4,510	4,408	4,136	3,757
Future participants	4,009	3,773	3,753	3,507	3,179
All current and future participants	8,976	8,411	8,286	7,756	7,033
Expenditures for Scheduled Future Benefits for:					
Participants who have attained eligibility age	2,168	1,897	1,747	1,693	1,681
Participants who have not attained eligibility age	12,054	10,028	9,195	8,568	6,702
Future participants	3,246	2,653	2,470	2,225	1,349
All current and future participants	17,468	14,577	13,412	12,487	9,732
Present value of future expenditures less future revenue	8,492[1]	6,166[2]	5,126[3]	4,730[4]	2,699[5]
Federal Supplementary Medical Insurance (Medicare Part B):					
Premiums:					
Participants who have attained eligibility age	332	284	252	258	234
Participants who have not attained eligibility age	2,665	2,148	1,856	1,845	1,527
Future participants	891	688	600	593	404
All current and future participants	3,889	3,120	2,708	2,696	2,165
Expenditures for Scheduled Future Benefits for:					
Participants who have attained eligibility age	1,475	1,306	1,132	1,159	1,051
Participants who have not attained eligibility age	10,577	8,845	7,463	7,415	6,094
Future participants	3,277	2,622	2,238	2,206	1,514
All current and future participants	15,329	12,773	10,833	10,780	8,659
Present value of future expenditures less future revenue[6]	11,440[1]	9,653[2]	8,125[3]	8,084[4]	6,494[5]
Federal Supplementary Medical Insurance (Medicare Part D):					
Premiums:					
Participants who have attained eligibility age	176				
Participants who have not attained eligibility age	1,857				
Future participants	618				
All current and future participants	2,651				
Expenditures for Scheduled Future Benefits for:					
Participants who have attained eligibility age	773				
Participants who have not attained eligibility age	7,566				
Future participants	2,431				
All current and future participants	10,770				
Present value of future expenditures less future revenue[6]	8,119[1]				

	2004	2003	2002	2001	2000
Railroad Retirement:					
Contributions and Earmarked Taxes from:					
Participants who have attained eligibility	4	4	3	3	N/A
Participants who have not attained eligibility	37	40	40	41	N/A
Future participants	39	41	41	41	N/A
All current and future participants	80	85	83	84	N/A
Expenditures for Scheduled Future Benefits for:					
Participants who have attained eligibility	81	80	74	73	N/A
Participants who have not attained eligibility	72	73	76	74	N/A
Future participants	14	14	13	13	N/A
All current and future participants	167	167	162	161	N/A
Present value of future expenditures less future revenues[7] ...	87[1]	83[2]	79[3]	77[4]	N/A
Black Lung (Part C) *present value of future expenditures less future revenue*	(4)[8]	(4)[9]	(5)[10]	(4)[11]	(4)[12]

[1] The projection period is 1/1/2004 - 12/31/2078 and the valuation date is 1/1/2004.
[2] The projection period is 1/1/2003 - 12/31/2077 and the valuation date is 1/1/2003.
[3] The projection period is 1/1/2002 - 12/31/2076 and the valuation date is 1/1/2002.
[4] The projection period is 1/1/2001 - 12/31/2075 and the valuation date is 1/1/2001.
[5] The projection period is 1/1/2000 - 12/31/2074 and the valuation date is 1/1/2000.
[6] These amounts represent the present value of the transfers from the general fund of the Treasury to the Supplementary Medical Insurance Trust Fund. These intragovernmental transfers are included as income in the CMS Financial Report but are not income from the Governmentwide perspective of this report.
[7] These amounts approximate the present value of the financial interchange and transfers from the general fund of the Treasury to the SSEB Account (see later discussion of Railroad Retirement program). They are included as income in the Railroad Retirement Financial Report but are not income from the Governmentwide perspective of this report.
[8] The projection period is 9/30/2004 - 9/30/2040 and the valuation date is 6/30/2004.
[9] The projection period is 9/30/2003 - 9/30/2040 and the valuation date is 6/30/2003.
[10] The projection period is 9/30/2002 - 9/30/2040 and the valuation date is 6/30/2002.
[11] The projection period is 9/30/2001 - 9/30/2040 and the valuation date is 6/30/2001.
[12] The projection period is 9/30/2000 - 9/30/2040 and the valuation date is 6/30/2000.
The "N/A" (not available) entries have not been calculated by the Railroad Retirement Board.

Note: Details may not add to totals due to rounding.

The following notes are an integral part of this statement.

Notes to the Statements of Social Insurance

Actuarial present values of the projections are computed based on the economic and demographic assumptions believed most likely to occur (the intermediate assumptions) as set forth in the relevant Trustees' reports and in the relevant agency performance and accountability reports for Railroad Retirement and Black Lung. The projections are based on the continuation of program provisions contained in current Social Security law.

Contributions and earmarked taxes consist of payroll taxes from employers, employees, and self-employed persons; revenue from Federal income taxation of OASDI and railroad retirement benefits; excise tax on coal (Black Lung); and premiums from participants in Medicare. Income for all programs is presented from a consolidated perspective. Interest payments and other intragovernmental transfers have been eliminated. For example, the Centers for Medicare & Medicaid Services' (CMS) 2004 Financial Report presents income from the trust fund's perspective, not a Governmentwide perspective. Therefore, CMS' Financial Report includes $11,440 billion for the present value of future transfers from the general fund of the Treasury to the Medicare Part B Account and $8,119 billion for the Medicare Part D Account that have been eliminated in this *Financial Report*. Expenditures include scheduled benefit payments and administrative expenses. The term "scheduled" is used to signify that projected benefits are based on the benefit formulas under current law. However, current Social Security and Medicare law does not provide for full benefit payments after the trust funds are exhausted.

Future participants include births during the projection period and individuals below age 15 as of January 1 of the valuation year.

The present values of future expenditures less future revenues is the current amount of funds needed to cover projected shortfalls, excluding the starting trust fund balances, over the projection period. They are calculated by

subtracting the actuarial present values of future scheduled contributions and dedicated tax income by and on behalf of current and future participants from the actuarial present value of the future scheduled benefit payments to them or on their behalf. For these calculations, the trust fund balances at the beginning of the valuation period are not included. The beginning-of-year trust fund balances in billions of dollars for the respective programs are shown in the following table.

Program	2004	2003	2002	2001	2000
Social Security	$1,531	$1,378	$1,213	$1,049	$896
Medicare					
Part A	$256	$235	$209	$178	$141
Part B	$24	$34	$41	$44	$45
Part D	N/A	N/A	N/A	N/A	N/A
Railroad Retirement	$26	$22	$21	$19	$17
Black Lung	($8)	($8)	($8)	($7)	($7)

The projection period for future participants covers the next 75 years for the Social Security and Medicare programs. The projection period for current participants (i.e., those age 15 and over on January 1 of the valuation year, referred to as the "closed group") would theoretically cover all of their working and retirement years, a period that could be greater than 75 years in a relatively small number of instances.

For Social Security and Medicare, further information can be obtained from the Social Security Administration (SSA) (*The 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds)* and from the Department of Health and Human Services (HHS) (*The 2004 Annual Report of the Boards of the Trustees of the Federal Hospital Insurance and the Federal Supplementary Medical Insurance Trust Funds)*.

Social Security and Medicare

Social Security

The Federal Old-Age and Survivors Insurance (OASI) Trust Fund was established on January 1, 1940, as a separate account in the Treasury. The Federal Disability Insurance (DI) Trust Fund, another separate account in the Treasury, was established on August 1, 1956. OASI pays cash retirement benefits to eligible retirees and their eligible dependents and survivors and the much smaller DI fund pays cash benefits to eligible individuals who are unable to work due to medical conditions. Though the events that trigger benefit payments are quite different, both trust funds have the same earmarked financing structure: primarily payroll taxes and income taxes on benefits. All financial operations of the OASI and DI programs are handled through these respective funds. The two funds are often referred to as simply the combined OASDI Trust Funds.

The primary receipts of these two funds are taxes paid by workers, their employers, and individuals with self-employment income, based on work covered by the OASDI program. Since 1990, employers and employees have each paid 6.2 percent of covered earnings. The self-employed pay 12.4 percent of covered earnings. Payroll taxes are computed on wages and net earnings from self-employment up to a specified maximum annual amount ($87,900 in 2004) that increases each year with economy-wide wages.

Since 1984, up to one-half of OASDI benefits has been subject to Federal income taxation. Effective for taxable years beginning after 1993, the maximum percentage of benefits subject to taxation was increased from 50 percent to 85 percent. The revenue from income taxes on 50 percent of benefits is allocated to the OASDI Trust Funds and the rest is allocated to the Hospital Insurance (HI) Trust Fund.

That portion of each trust fund not required to pay benefits and administrative costs is invested, on a daily basis, in interest-bearing obligations of the U.S. Government. The Social Security Act authorizes the issuance by the Treasury of special nonmarketable, intragovernmental debt obligations for purchase exclusively by the trust funds. Although the special issues cannot be bought or sold in the open market, they are redeemable at any time at face value and thus bear no risk of fluctuations in principal value due to changes in market yield rates. Interest on the bonds is credited to the trust funds and becomes an asset to the funds and a liability to the general Government fund.

Medicare

The Medicare program, created in 1965, also has two separate trust funds: the Hospital Insurance (HI, Medicare Part A) and Supplementary Medical Insurance (SMI, Medicare Parts B and D) Trust Funds.[2] HI pays for inpatient acute hospital services and major alternatives to hospitals (skilled nursing services, for example) and SMI pays for hospital outpatient services, physician services, and assorted other services and products through the Part B account and will pay for prescription drugs through the Part D account. Though the events that trigger benefit payments are quite similar, HI and SMI have very different earmarked financing structures. Like OASDI, HI is financed primarily by payroll contributions. Employers and employees each pay 1.45 percent of earnings, while self-employed workers pay 2.9 percent of their net income. Other income to the HI fund includes a small amount of premium income from voluntary enrollees, a portion of the Federal income taxes that beneficiaries pay on Social Security benefits (as explained above), and interest credited on Treasury securities held in the HI Trust Fund.

For SMI, transfers from the general fund of the Treasury represent the largest source of income covering about 75 percent of program costs for both Parts B and D. Beneficiaries pay monthly premiums that finance about 25 percent of costs. As with HI, interest due on Treasury securities held in the SMI Trust Fund is credited to the fund, although in the case of SMI, this is quite small.

Social Security, Medicare, and Governmentwide Finances

The current and future financial status of the separate Social Security and Medicare Trust Funds is the focus of the Trustees' Reports, a focus that may appropriately be referred to as the "trust fund perspective." In contrast, the Federal Government primarily uses the *unified budget* concept as the framework for budgetary analysis and presentation. It represents a comprehensive display of all Federal activities, regardless of fund type or on- and off-budget status, a broader focus than the trust fund perspective that may appropriately be referred to as the "budget perspective" or the "Governmentwide perspective." Social Security and Medicare are among the largest expenditure categories of the U.S. Federal budget. Together, they now account for more than a third of all Federal spending and the percentage is projected to rise dramatically for the reasons discussed below. This section describes in detail the important relationship between the trust fund perspective and the Governmentwide perspective.

Figure 1 is a simplified graphical depiction of the interaction of the Social Security and Medicare Trust Funds with the rest of the Federal budget.[3] The boxes on the left show sources of funding, those in the middle represent the trust funds and other Government accounts (of which the general fund is a part) into which that funding flows, and the boxes on the right show simplified expenditure categories. The figure is intended to illustrate how the various sources of program revenue flow through the budget to beneficiaries. The general approach is to group revenues and expenditures that are linked specifically to Social Security and/or Medicare separately from those for other Federal programs. (For ease of understanding, these other Federal programs are referred to here as *other Government* programs.)

Each of the trust funds has its own sources and types of revenue. With the exception of general fund transfers to SMI, each of these revenue sources is earmarked specifically for the respective trust fund, and cannot be used for other purposes. In contrast, personal and corporate income taxes and other revenue go into the general fund of the Treasury and are drawn down for any Government program for which Congress has approved spending.[4] The arrows from the boxes on the left represent the flow of these revenues into the trust funds and other Government accounts.

The heavy line between the top two boxes in the middle of Figure 1 represents intragovernmental transfers between the SMI Trust Fund and other Government accounts. The Medicare SMI Trust Fund is shown separately from the two Social Security trust funds (OASI and DI) and the Medicare HI Trust Fund to highlight the unique financing of SMI. SMI is currently the only one of the four programs that receives large transfers from the general fund of the Treasury, which is part of the other Government accounts. The transfers make up roughly three-fourths of SMI program expenses. While the transfers currently support the Part B account, beginning in 2006 additional transfers will be made to the Part D account and are expected to comprise about three-fourths of expenses in that account. The transfers are automatic; their size depends on how much the program spends, not on how much

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[2] Medicare legislation in 2003 created the new Part D account in the SMI Trust Fund to track the finances of a new prescription drug benefit that will begin in 2006. As in the case of Medicare Part B, approximately three-quarters of revenues to the Part D account will come from general revenues. Consequently, the nature of the relationship between the SMI Trust Fund and the Federal budget described below is largely unaffected by the presence of the Part D account though the magnitude will be greater.

[3] The Federal unified budget encompasses all Federal Government financing and is synonymous with a Governmentwide perspective.

[4] Other programs also have dedicated revenues in the form of taxes and fees (and other forms of receipt) and there are a large number of earmarked trust funds in the Federal budget. Total trust fund receipts account for about 40 percent of total Government receipts with the Social Security and Medicare Trust Funds accounting for about two-thirds of trust fund receipts. For further discussion see *Federal Trust and Other Earmarked Funds*, GAO-01-199SP, January 2001. In the figure and the discussion that follows, we group all other programs, including these other earmarked trust fund programs, under "Other Government Accounts" to simplify the description and maintain the focus on Social Security and Medicare.

revenue comes into the Treasury. If general fund revenues become insufficient to cover both the mandated transfer to SMI and expenditures on other general Government programs, Treasury would have to borrow to make up the difference. In the longer run, if transfers to SMI are increasing—as shown below, they are projected to increase significantly in coming years—then Congress must either raise taxes, cut other Government spending, or reduce SMI benefits.

The dotted lines between the middle boxes of Figure 1 also represent intragovernmental transfers but those transfers arise in the form of "borrowing/lending" between the Government accounts. Interest credited to the trust funds arises when the excess of program income over expenses is loaned to the general fund. The vertical lines labeled *Surplus Borrowed* represent these flows from the trust funds to the other Government accounts. These loans reduce the amount that the general fund has to borrow from the public to finance a deficit (or likewise increase the amount of debt paid off if there is a surplus). But the general fund has to credit interest on the loans from the trust fund programs, just as if it borrowed the money from the public. The credits lead to future obligations for the general fund (which is part of the other Government accounts). These transactions are indicated in Figure 1 by the vertical arrows labeled *Interest Credited*. The credits increase trust fund income exactly as much as they increase credits (future obligations) in the general fund. So from the standpoint of the Government as a whole, at least in an accounting sense, these interest credits are a wash.

It is important to understand the additional implications of these loans from the trust funds to the other Government accounts. When the trust funds get the receipts that they loan to the general fund, these receipts provide additional authority to spend on benefits and other program expenses. The general fund, in turn, has taken on the obligation of paying interest on these loans every year and repaying the principal when trust fund income from other sources falls below expenditures—the loans will be called in and the general fund will have to reduce other spending, raise taxes, or borrow more from the public to finance the benefits paid by the trust funds.

Figure 1
Social Security, Medicare, and Governmentwide Finances
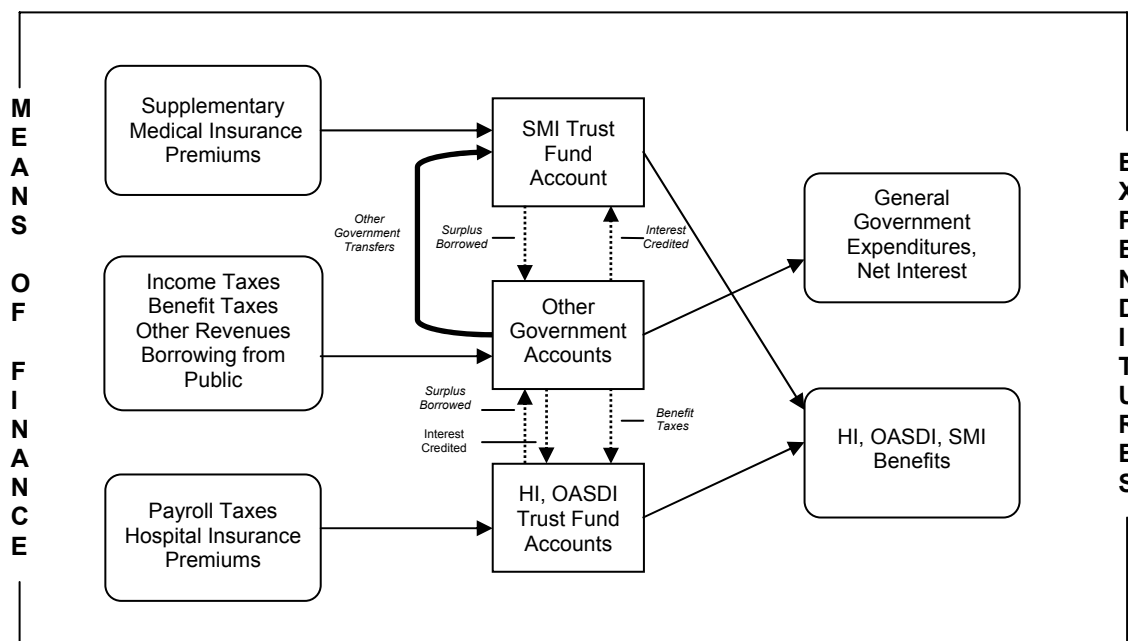
Actual dollar amounts roughly corresponding to the flows presented in Figure 1 are shown in Table 1 for fiscal year 2004. The first three columns show revenues and expenditures for HI, SMI, and OASDI, respectively, and the fourth column is the sum of these three columns. The fifth column has total revenues and expenditures for all other Government programs, which includes the general fund account, and the last column is the sum of the "combined" and "other Government" columns. In Table 1, revenues from the public (left side of Figure 1) and expenditures to the public (right side of Figure 1) are shown separately from transfers between Government accounts (middle of

Figure 1). Note that the transfers ($81.4) and interest credits ($100.8) received by the trust funds appear as negative entries under other Government and are thus offsetting when summed for the total budget column. These two intragovernmental transfers are key to the differences between the trust fund and budget perspectives.

From the Governmentwide perspective, only revenues received from the public and expenditures made to the public are important for the final balance. Trust fund revenue from the public consists of payroll taxes, benefit taxes, and premiums. For HI, the difference between such revenues ($165.2 billion) and total expenditures made to the public ($167 billion) was -$1.8 billion in 2004, indicating that HI had a relatively small negative effect on the overall budget outcome *in that year*. For the SMI account, revenues from the public (premiums) were relatively small, representing about a quarter of total expenditures made to the public in 2004. The difference, -$104.2 billion, resulted in a net draw on the overall budget balance in that year. For OASDI, the difference between revenues from the public ($560.4 billion) and total expenditures was $64.9 billion in 2004, indicating that OASDI had a positive effect on the overall budget outcome *in that year*.

The trust fund perspective is captured in the bottom section of each of the three trust fund columns that contain data from the respective trustees' reports. For HI, total revenues exceeded total expenditures by $13.8 billion in 2004, as shown at the bottom of the first column. This surplus would be added to the beginning trust fund (not shown) that leads to budget obligations in future years. For SMI, total revenues of $126.8 billion ($30.3 + $96.5), including $94.5 billion transferred from other Government accounts (the general fund), fell short of total expenditures by $7.7 billion. Transfers to the SMI program from other Government accounts (the general fund), amounting to about 75 percent of program costs, are obligated under current law and therefore appropriately viewed as revenue from the trust fund perspective. For OASDI, total revenues of $646.6 billion ($560.4 + $86.2), including interest and a small amount of other Government transfers, exceeded total expenditures of $495.5 billion by $151.1 billion.

Table 1
Annual Revenues and Expenditures for Medicare and Social Security
Trust Funds and the Total Federal Budget, Fiscal Year 2004

(In billions of dollars)

| | Trust Funds | | | | Other | |
Revenue and Expenditure Categories	HI	SMI	OASDI	Com-bined	Govern-ment	Total[1]
Revenues from the Public:						
Payroll and benefit taxes	162.2	-	560.4	722.6	-	722.6
Premiums	3.0	30.3	-	33.3	-	33.3
Other taxes and fees	-	-	-	-	1,124.1	1,124.1
Total	165.2	30.3	560.4	755.9	1,124.1	1,880.0
Total expenditures to the public[2]	167.0	134.5	495.5	797.0	1,495.0	2,292.0
Net results for budget perspective	(1.8)	(104.2)	64.9	(41.1)	(370.9)	(412.0)
Revenues from Other Government Accounts:						
Transfers	0.6	94.5	-	95.1	(95.1)	-
Interest credits	15.0	1.9	86.2	103.1	(103.1)	-
Total	15.6	96.5	86.2	198.3	(198.3)	-
Net results for trust fund perspective	13.8	(7.7)	151.1	157.2	N/A	N/A

[1] This column is the sum of the preceding two columns and shows data for the total Federal budget. The figure $412 was the total Federal deficit in fiscal year 2004.
[2] The OASDI figure includes $3.8 billion transferred to the Railroad Retirement Board for benefit payments.
Note: "N/A" indicates not applicable.

Cashflow Projections

Background

Economic and Demographic Assumptions. The Boards of Trustees[5] of the OASDI and Medicare Trust Funds provide in their annual reports to Congress short-range (10-year) and long-range (75-year) actuarial estimates of each trust fund. Because of the inherent uncertainty in estimates for 75 years into the future, the Boards use three alternative sets of economic and demographic assumptions to show a range of possibilities. Assumptions are made about many economic and demographic factors, including gross domestic product (GDP), earnings, the consumer price index (CPI), the unemployment rate, the fertility rate, immigration, mortality, disability incidence and terminations and, for the Medicare projections, health care cost growth. The assumptions used for the most recent set of projections shown in Table 2 are generally referred to as the "intermediate assumptions," and reflect the Trustees' best estimate of expected future experience.

Table 2
Social Security and Medicare Demographic and Economic Assumptions

	Demographic Assumptions					Economic Assumptions			
Year	Total Fertility Rate[1]	Age-Sex Adjusted Death Rate[2]	Life Expect-ancy At Birth Male[3]	Life Expect-ancy At Birth Female[3]	Net Immi-Gration[4] (persons)	Product-ivity, total economy (percent change)	Real Wage Differ-ential[5] (percent)	CPI[6] (percent change)	Average Annual Interest Rate[7] (percent)
2004	2.02	862.6	74.5	79.6	1,175,000	2.7	2.4	1.2	4.4
2005	2.01	858.4	74.7	79.6	1,150,000	1.8	2.8	1.5	4.8
2010	2.00	831.0	75.3	80.0	1,025,000	1.7	1.3	2.8	5.9
2020	1.97	766.8	76.3	80.8	950,000	1.6	1.1	2.8	5.8
2030+	1.95	706.9	77.4	81.7	900,000	1.6	1.0	2.8	5.8

[1] The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year, and if she were to survive the entire childbearing period. The ultimate total fertility rate of 1.95 is assumed to be reached in 2028.

[2] The age-sex-adjusted death rate is a weighted average of age-sex-specific death rates (deaths per 100,000) in a year where the weights are the number of people in the corresponding age-sex group as of April 1, 2000. The death rate is a summary measure and not a basic assumption. Note that after 2030, the death rate continues to fall, to 497.2 by 2080.

[3] The period life expectancy for a group of persons born in a given year is the average that would be attained by such persons if the group were to experience in succeeding years the death rates by age observed in, or assumed for, the given year. It is a summary measure and not a basic assumption; it summarizes the effects of the basic assumptions from which it is derived. Life expectancy continues to increase, to 81.6 for males and 85.3 for females by 2080.

[4] Net immigration is the number of persons who enter during the year (both legally and otherwise) minus the number of persons who leave during the year.

[5] The real-wage differential is the difference between the percentage increases, before rounding, in the average annual wage in covered employment, and the average annual CPI. The ultimate real wage differential eventually trends upwards to an ultimate value of 1.1.

[6] The CPI is the annual average value for the calendar year of the CPI for urban wage earners and clerical workers.

[7] The average annual interest rate is the average of the nominal interest rates, which, in practice, are compounded semiannually for special-issue Treasury obligations sold only to the trust funds in each of the 12 months of the year.

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[5] There are six trustees: the Secretaries of Treasury (managing trustee), Health and Human Services, and Labor; the Commissioner of the Social Security Administration; and two public trustees who are appointed by the President and confirmed by the Senate for a 4-year term. By law, the public trustees are members of two different political parties. The two current public trustees are John Palmer, Syracuse University, and Thomas Saving, Texas A&M University. Palmer and Saving began their term on 10/28/2000.

Beneficiary-to-Worker Ratio. Underlying the pattern of expenditure projections for both the OASDI and Medicare programs is the impending demographic change that will occur as the large baby-boom generation, born in the years 1946 to 1964, retires or reaches eligibility age. The consequence is that the number of beneficiaries will increase much faster than the number of workers who pay taxes that are used to pay benefits. The pattern is illustrated in Chart 1 which shows the ratio of OASDI beneficiaries to workers for the historical period and estimated for the next 75 years. In 2003, there were about 30 beneficiaries for every 100 workers. By 2030, there will be about 46 beneficiaries for every 100 workers. A similar demographic pattern confronts the Medicare program. For example, for the HI program, there were about 26 beneficiaries for every 100 workers in 2003; by 2030 there are expected to be about 42 beneficiaries for every 100 workers. This ratio for both programs will continue to increase to about 50 beneficiaries for every 100 workers by the end of the projection period after the baby-boom generation has moved through the Social Security system due to declining birth rates and increasing longevity.

Chart 1—Beneficiaries per 100 Covered Workers
1970-2078

Historical Data

Source: www.ssa.gov/OACT/TR/TR04

Calendar Year
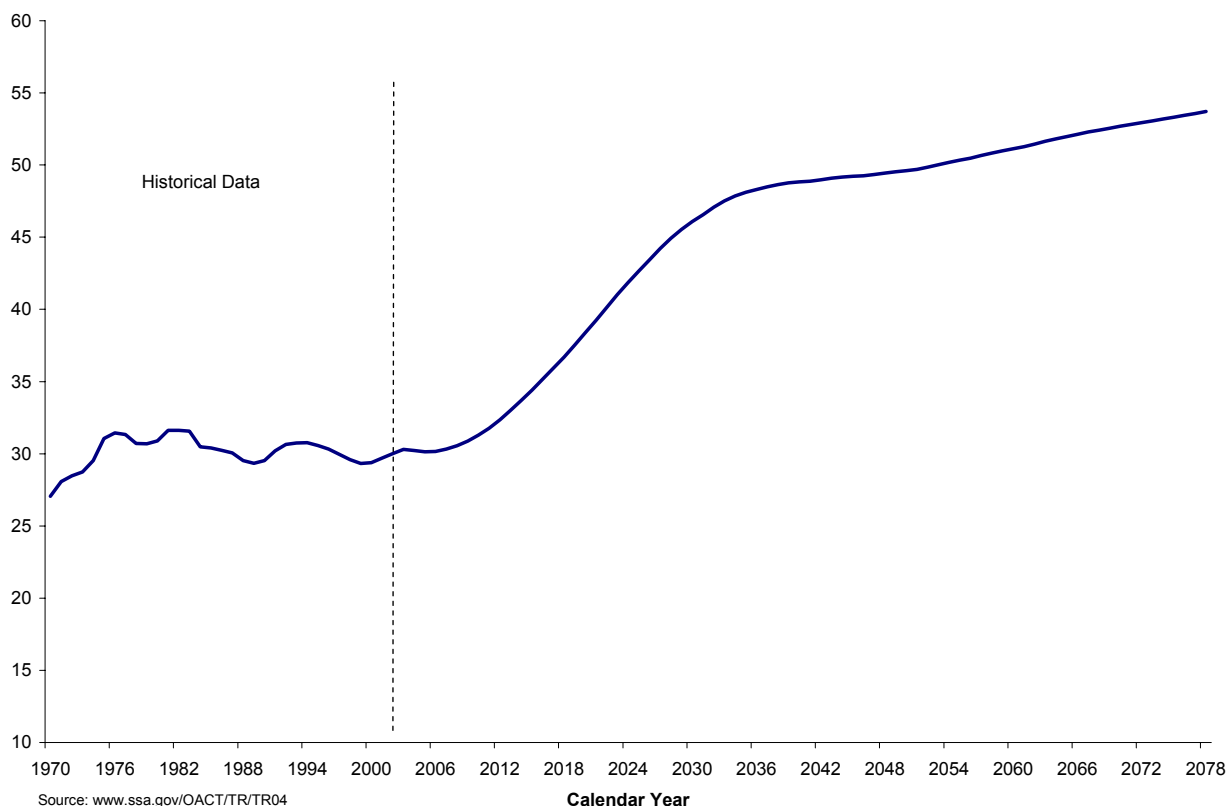
Social Security Projections

Nominal Income and Expenditures. Chart 2 shows historical values and actuarial estimates of combined OASDI annual income (excluding interest) and expenditures for 1970-2078 in nominal dollars. The estimates are for the open-group population. That is, the estimates include taxes paid from, and on behalf of, workers who will enter covered employment during the period, as well as those already in covered employment at the beginning of that period. These estimates also include scheduled benefit payments made to, and on behalf of, such workers during that period. Note that expenditure projections in Chart 2 and subsequent charts are based on current-law benefit formulas regardless of whether the income and assets are available to finance them.

Chart 2—OASDI Income (Excluding Interest) and Expenditures
1970-2078

(In billions of nominal dollars)


Source: www.ssa.gov/OACT/TR/TR04
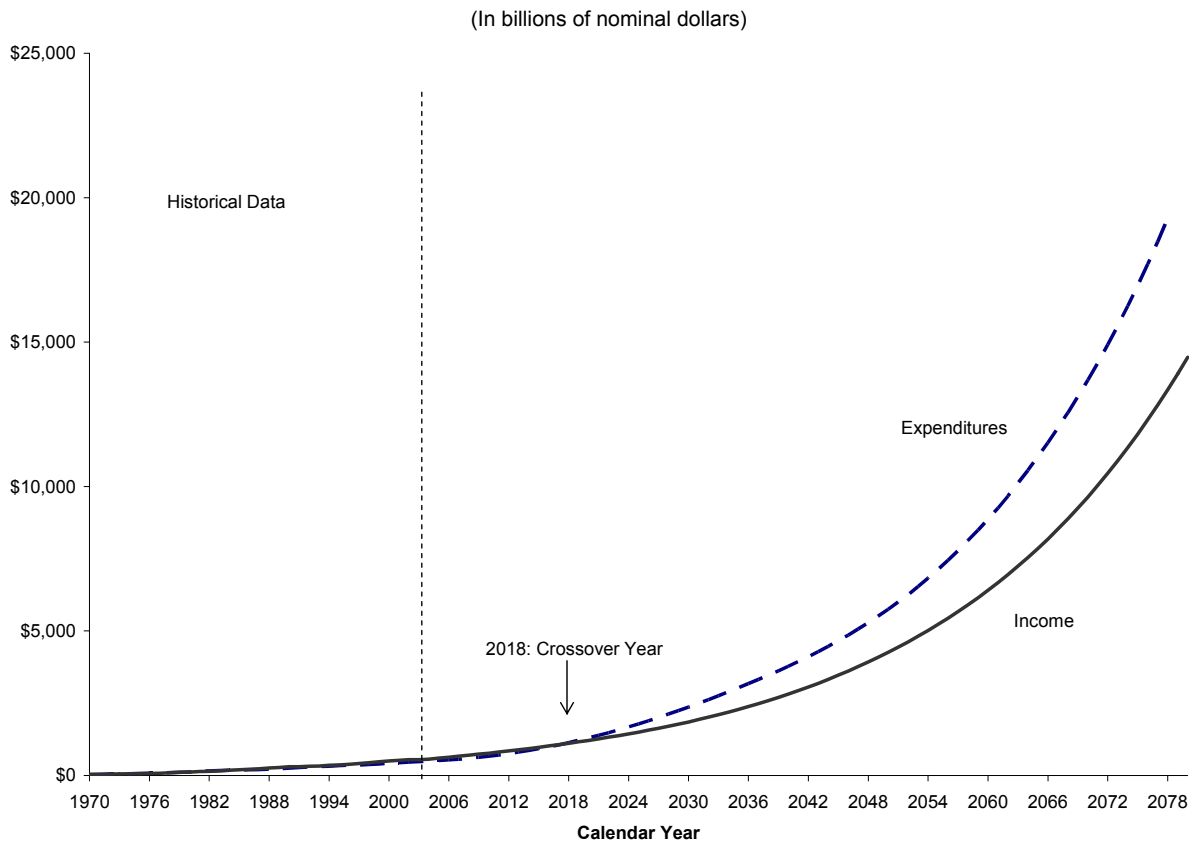
Currently, Social Security tax revenues exceed benefit payments and will continue to do so until 2018, when revenues are projected to fall below benefit payments, after which the gap between expenditures and revenues continues to widen.

Income and Expenditures as a Percent of Taxable Payroll. Chart 3 shows annual income (excluding interest but including both payroll and benefit taxes) and expenditures expressed as percentages of taxable payroll, commonly referred to as the income rate and cost rate, respectively.

The OASDI cost rate is projected to decline slightly until about 2008. It then begins to increase rapidly and first exceeds the income rate in 2018, producing cashflow deficits thereafter. As described above, surpluses that occur prior to 2018 are "loaned" to the general fund and accumulate, with interest, reserve spending authority for the trust fund. The reserve spending authority represents an obligation for the general fund. Beginning in 2018, Social Security will start using interest credits to meet full benefit obligations. The Government will need to raise taxes, reduce benefits, increase borrowing from the public, and/or cut spending for other programs to meet its obligations to the trust fund. By 2042, the trust fund reserves (and thus reserve spending authority) are projected to be exhausted. Even if a trust fund's assets are exhausted, however, tax income will continue to flow into the fund. Present tax rates would be sufficient to pay 73 percent of scheduled benefits after trust fund exhaustion in 2042 and 68 percent of scheduled benefits in 2078.

**Chart 3—OASDI Income (Excluding Interest) and Expenditures
as a Percent of Taxable Payroll
1970-2078**

Source: www.ssa.gov/OACT/TR/TR04
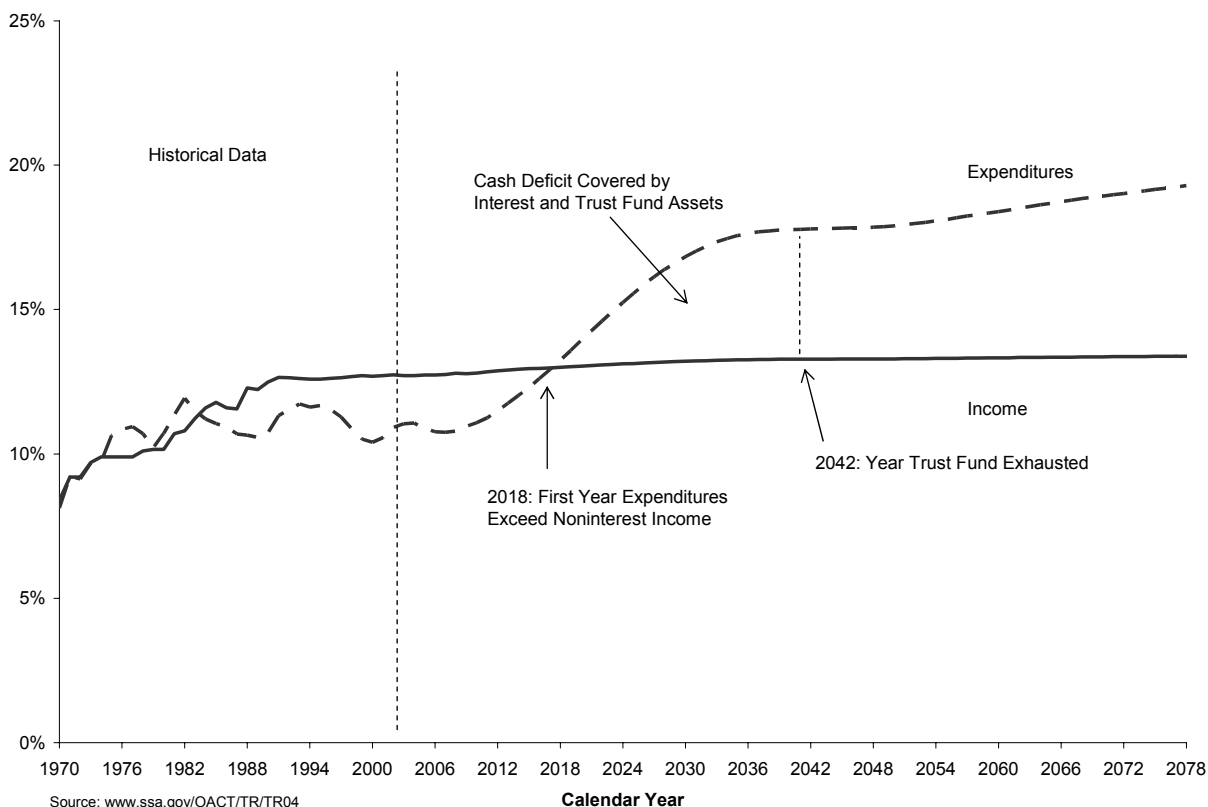
Income and Expenditures as a Percent of GDP. Chart 4 shows estimated annual income (excluding interest) and expenditures, expressed as percentages of GDP, the total value of goods and services produced in the United States. This alternative perspective shows the size of the OASDI program in relation to the capacity of the national economy to sustain it. The gap between expenditures and income widens continuously with expenditures growing as a share of GDP and income declining slightly relative to GDP. Social Security's expenditures are projected to grow from 4.4 percent of GDP in 2003 to 6.5 percent by 2033 and to 6.6 percent by 2078. In 2078, expenditures are projected to exceed income by 2 percent of GDP.

**Chart 4—OASDI Income (Excluding Interest) and Expenditures
as a Percent of GDP
1970-2078**

Source: www.ssa.gov/OACT/TR/TR04
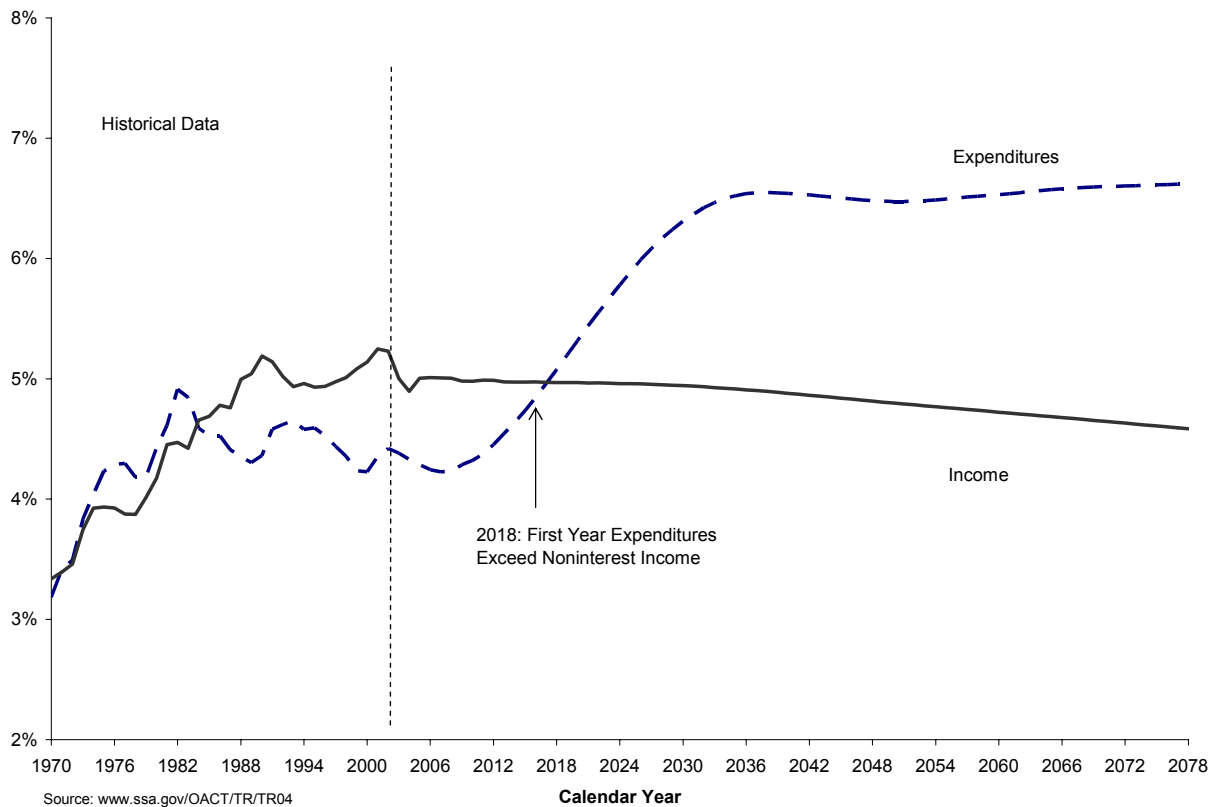
Sensitivity Analysis. Actual future income from OASDI payroll taxes and other sources and actual future expenditures for scheduled benefits and administrative expenses will depend upon a large number of factors: the size and composition of the population that is receiving benefits, the level of monthly benefit amounts, the size and characteristics of the work force covered under OASDI, and the level of workers' earnings. These factors will depend, in turn, upon future marriage and divorce rates, birth rates, death rates, migration rates, labor force participation and unemployment rates, disability incidence and termination rates, retirement age patterns, productivity gains, wage increases, cost-of-living increases, and many other economic and demographic factors.

This section presents estimates that illustrate the sensitivity of long-range expenditures and income for the OASDI program to changes in *selected individual assumptions*. In this analysis, the intermediate assumption is used as the reference point, and one assumption at a time is varied. The variation used for each individual assumption reflects the levels used for that assumption in the low cost (Alternative I) and high cost (Alternative III) projections. For example, when analyzing sensitivy with respect to variation in real wages, income and expenditures are projected using the intermediate assumptions and comparing the outcome when projections are done by changing only the real wage asssumption to either low cost or high cost alternatives.

The low cost alternative is characterized by assumptions that generally improve the financial status of the program (relative to the intermediate assumption) such as slower improvement in mortality (beneficiaries die younger). In contrast, assumptions under the high cost alternative generally worsen the financial outlook. One exception occurs with the CPI assumption (see below).

Table 3 shows the effects of changing various assumptions on the present value of estimated OASDI expenditures in excess of income (the *shortfall* of income relative to expenditures in present value terms). The assumptions are shown in parentheses. For example, the intermediate assumption for the annual rate of *reduction in age-sex-adjusted death rates* is 0.72 percent. For the low cost alternative, a slower reduction rate (0.30 percent) is assumed as it means that beneficiaries die at a younger age relative to the intermediate assumption, resulting in lower expenditures. Under the low cost assumption, the shortfall drops from $5,229 billion to $3,983 billion, a 24 percent smaller shortfall. The high cost death rate assumption (1.28 percent) results in an increase in the shortfall, from $5,229 billion to $6,738 billion, a 29 percent increase in the shortfall. Clearly, alternative death rate assumptions have a substantial impact on estimated future cashflows in the OASDI program.

A higher fertility rate means more workers relative to beneficiaries over the projection period, thereby lowering the shortfall relative to the intermediate assumption. An increase in the rate from 1.95 to 2.2 results in a 10 percent smaller shortfall (i.e., expenditures less income), from $5,229 billion to $4,707 billion.

Higher real wage growth results in faster income growth relative to expenditure growth. Table 3 shows that a real wage differential that is 0.5 greater than the intermediate assumption of 1.1 results in a drop in the shortfall from $5,229 billion to $4,429 billion, a 15 percent decline.

The CPI change assumption operates in a somewhat counterintuitive manner, as seen in Table 3. A lower rate of change results in a higher shortfall. This arises as a consequence of holding the real wage assumption constant while varying the CPI so that wages (the income base) are affected sooner than benefits. If the rate is assumed to be 1.8 percent rather than 2.8 percent, the shortfall rises about 7 percent, from $5,229 billion to $5,612 billion.

The effect of net immigration is similar to fertility in that, over the 75-year projection period, higher immigration results in proportionately more workers (taxpayers) than beneficiaries. The low-cost assumption for net immigration results in an 8 percent drop in the shortfall, from $5,229 billion to $4,813 billion, relative to the intermediate case; and the high-cost assumption results in a 6 percent higher shortfall.

Finally, Table 3 shows the sensitivity of the shortfall to variations in the real interest rate or, in present value terminology, the sensitivity to alternative discount rates. A higher discount rate reduces future values relative to a lower rate. As seen in the table, the shortfall is $1,404 billion lower (27 percent lower) if the real interest rate is 3.7 percent rather than 3 percent and $2,280 billion higher (44 percent higher) if the real interest rate is 2.2 percent rather than 3 percent.

Table 3
Present Values of Estimated OASDI Expenditures in Excess of Income Under Various Assumptions, 2004-2078

(In billions of dollars)

Assumption	Low Cost (Alternative I)	Intermediate (Alternative II)	High Cost (Alternative III)
Average annual reduction in death rates ..	3,983 (0.30)	5,229 (0.72)	6,738 (1.28)
Total fertility rate..	4,707 (2.2)	5,229 (1.95)	5,757 (1.7)
Real wage differential................................	4,429 (1.6)	5,229 (1.1)	5,795 (0.6)
CPI change...	5,612 (1.8)	5,229 (2.8)	4,839 (3.8)
Net immigration	4,813 (1,300,000)	5,229 (900,000)	5,526 (672,500)
Real interest rate	3,825 (3.7)	5,229 (3.0)	7,509 (2.2)

Source: 2004 OASDI Trustees Report and SSA. Numbers in parentheses are the values of the assumptions used in the respective scenario.

Medicare Projections

Recent Medicare Legislation. On December 8, 2003, President Bush signed into law the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. The 2003 law will have a major impact on the operations and finances of Medicare. The law adds a prescription drug benefit to Medicare beginning in 2006 and a new prescription drug account in the SMI Trust Fund. The benefit could be obtained through a private drug-only plan, a private preferred-provider organization or health maintenance organization, or through an employer-sponsored retiree health plan. The preferred-provider organizations will be new to the Medicare program and will operate on a regional basis. The Federal Government will assume some of the costs of providing prescription drug coverage to people eligible for both Medicare and Medicaid.

The legislation also includes provisions not related to the prescription drug benefit. It includes increases in Medicare provider reimbursements, higher Medicare Part B premiums for people at higher income levels, and an expansion of tax-deductible health savings accounts. The 2003 legislation is expected to have a significant effect on future Medicare finances as seen below and earlier in the Statement of Social Insurance.

Health Care Cost Growth. In addition to the growth in the number of beneficiaries per worker, the Medicare program has the added pressure of expected growth in the use and cost of health care per person. Continuing development and use of new technology is expected to cause health care expenditures to grow faster than GDP in the long run. For the intermediate assumption, health care expenditures per beneficiary are assumed to grow one percentage point faster than per capita GDP over the long range.
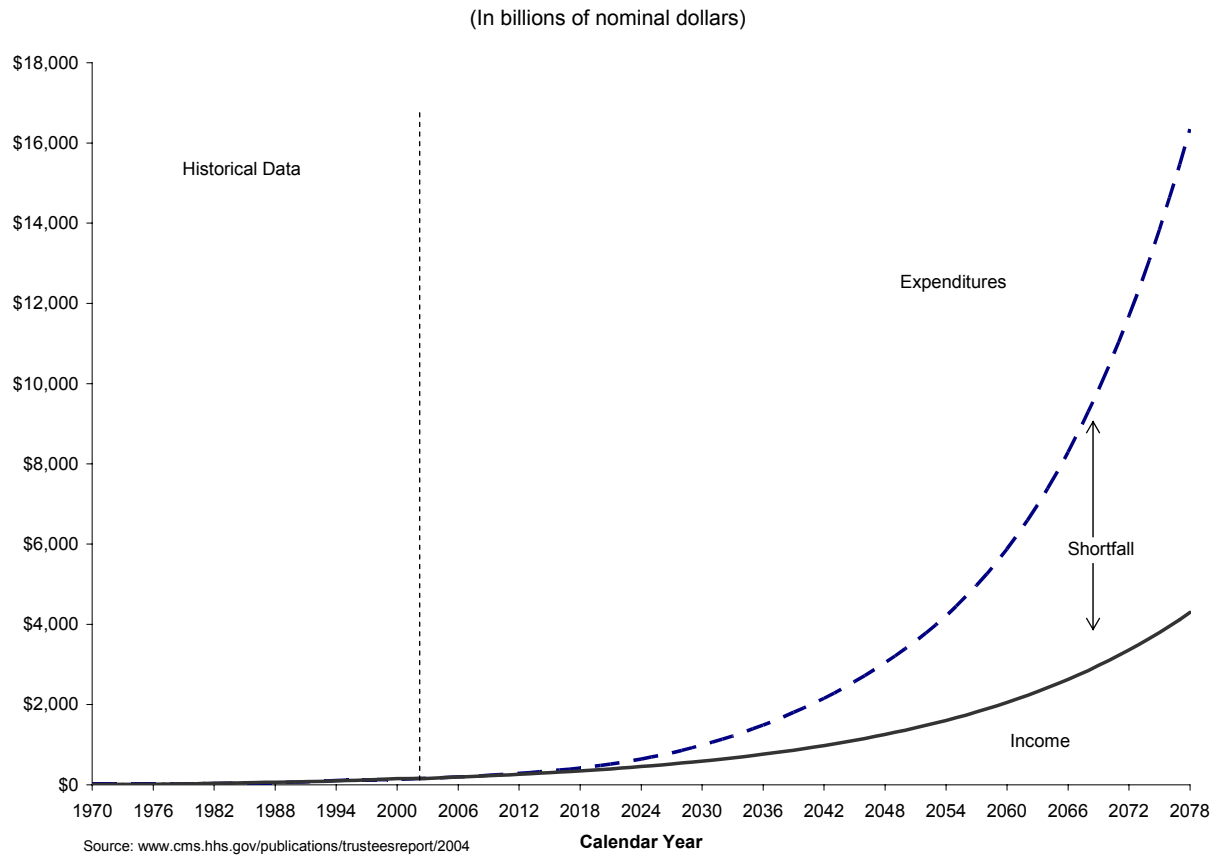
Total Medicare. It is important to recognize the rapidly increasing long-range cost of Medicare and the large role of general revenues and beneficiary premiums in financing the SMI program. Chart 5 shows expenditures and current-law noninterest revenue sources for HI and SMI combined as a percentage of GDP. The total expenditure line shows Medicare costs rising to almost 14 percent of GDP by 2078. Revenues from taxes and premiums (i. e., revenue from the public) are expected to increase from 1.7 percent of GDP in 2003 to only 3.3 percent of GDP in 2078. Payroll tax income declines gradually as a percent of GDP as growth in the number of workers paying such taxes slows, offset by higher premiums combined for Parts B and D of SMI as a percent of GDP. General revenue contributions for SMI, as determined by current law, are projected to rise as a percent of GDP from 0.8 percent to 6.2 percent over the same period. Thus, revenues from taxes and premiums will fall substantially as a share of total noninterest Medicare income (from 68 percent in 2003 to 34 percent in 2078) while general revenues will rise (from 32 percent to 63 percent). The gap between total noninterest Medicare income (including general revenue contributions) and expenditures begins around 2006 and then steadily continues to widen, reaching 4.1 percent of GDP by 2078.

**Chart 5—Total Medicare (HI and SMI) Expenditures and Noninterest Income
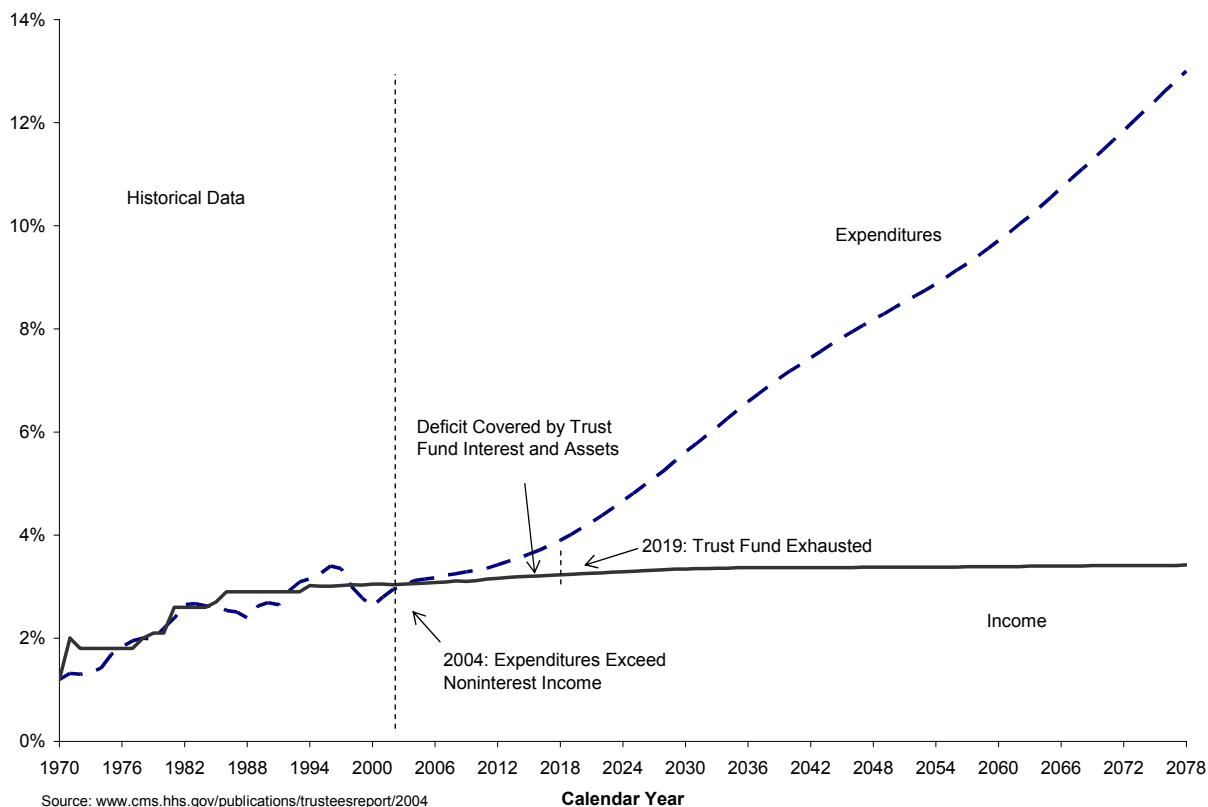as a Percent of GDP
1970-2078**

Source: www.ssa.gov/OACT/TRSUM
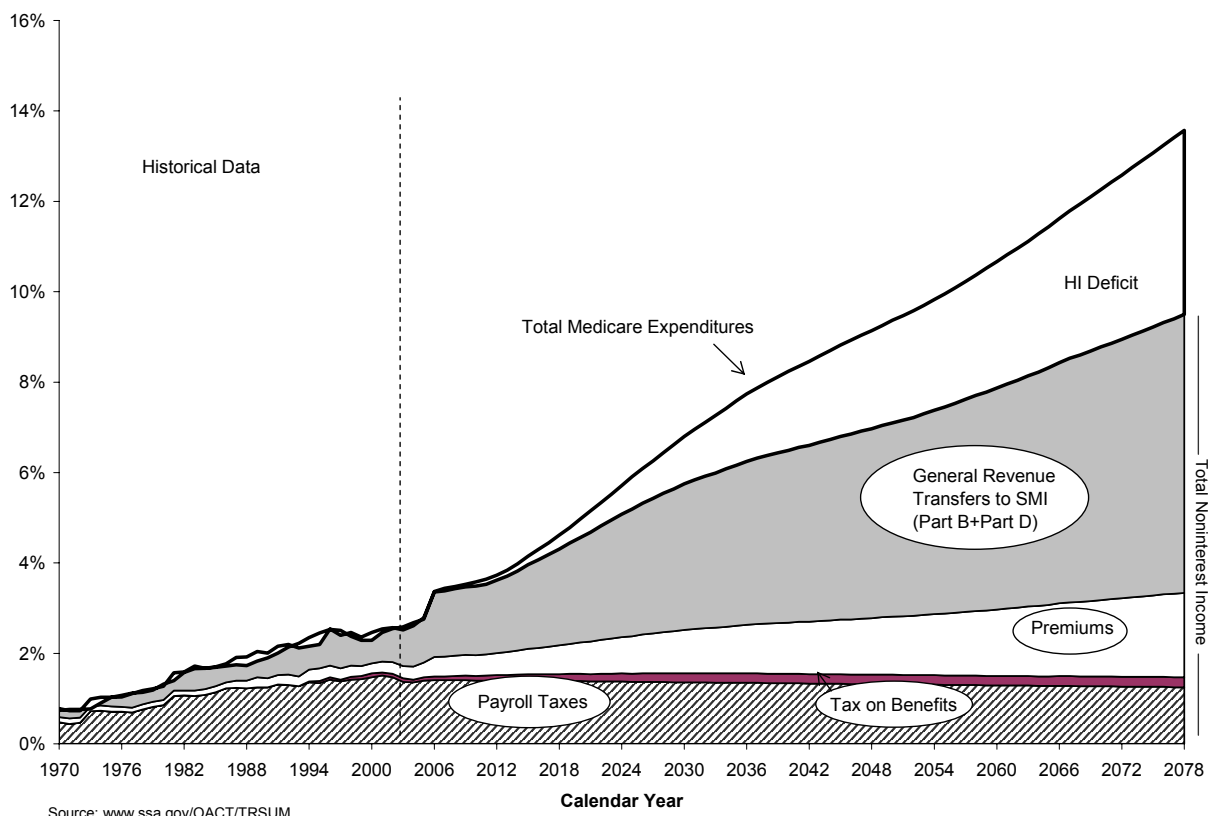
Medicare, Part A (Hospital Insurance)─Nominal Income and Expenditures. Chart 6 shows historical and actuarial estimates of HI annual income (excluding interest) and expenditures for 1970-2078 in nominal dollars. The estimates are for the open-group population. The figure reveals a widening gap between income and expenditures after 2004.

**Chart 6—Medicare Part A Income (Excluding Interest) and Expenditures
1970-2078**

(In billions of nominal dollars)

Source: www.cms.hhs.gov/publications/trusteesreport/2004

Calendar Year

Medicare, Part A Income and Expenditures as a Percent of Taxable Payroll. Chart 7 illustrates income (excluding interest) and expenditures as a percentage of taxable payroll over the next 75 years. The chart shows that the income rate exceeds the expenditure rate beginning in 2004, and cash deficits continue thereafter. Trust fund interest earnings and assets provide enough resources to pay full benefit payments until 2019 with general revenues used to finance interest and loan repayments to make up the difference between cash income and expenditures during that period. Pressures on the Federal budget will thus emerge well before 2019. Present tax rates would be sufficient to pay 73 percent of scheduled benefits after trust fund exhaustion in 2019 and 30 percent of scheduled benefits in 2078.

Chart 7—Medicare Part A Income (Excluding Interest) and Expenditures as a Percent of Taxable Payroll
1970-2078

Source: www.cms.hhs.gov/publications/trusteesreport/2004

Medicare Part A Income and Expenditures as a Percent of GDP. Chart 8 shows estimated annual income (excluding interest) and expenditures, expressed as percentages of GDP, the total value of goods and services produced in the United States. This alternative perspective shows the size of the HI program in relation to the capacity of the national economy to sustain it. Medicare Part A's expenditures are projected to grow from 1.5 percent of GDP in 2003 to 2.9 percent in 2033 and to 5.6 percent by 2078. The gap between expenditures and income widens continuously with expenditures growing as a share of GDP and income declining slightly relative to GDP. By 2078, expenditures are projected to exceed income by 4.1 percent of GDP.

**Chart 8—Medicare Part A Income (Excluding Interest) and Expenditures
as a Percent of GDP
1970-2078**

Source: www.cms.hhs.gov/publications/trusteesreport/2004
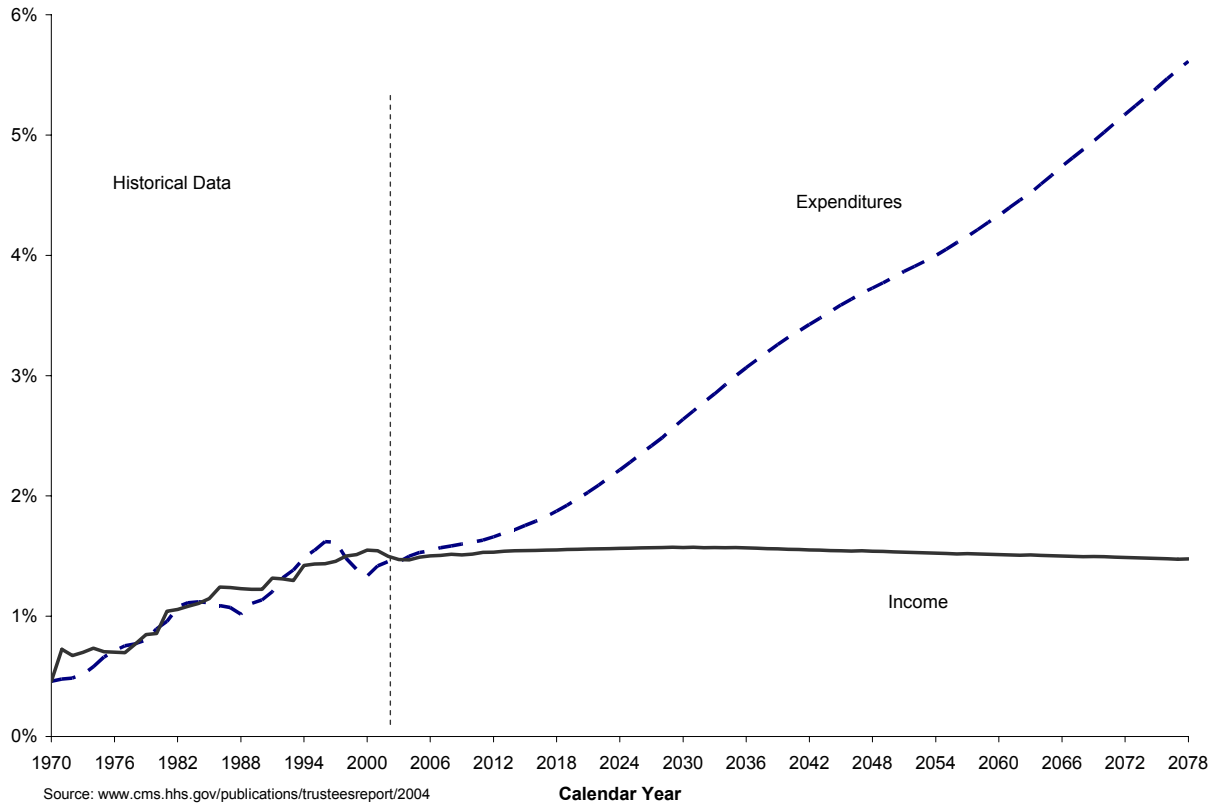
Medicare, Parts B and D (Supplementary Medical Insurance). Chart 9 shows historical and actuarial estimates of Medicare Part B and Part D premiums and expenditures for each of the next 75 years, in nominal dollars. The gap between premiums and expenditures, a gap that will need to be filled with transfers from general revenues, grows throughout the projection period.

Chart 9—Medicare Part B and Part D Premium Income and Expenditures 1970-2078

(In billions of nominal dollars)

Source: www.cms.hhs.gov/publications/trusteesreport/2004
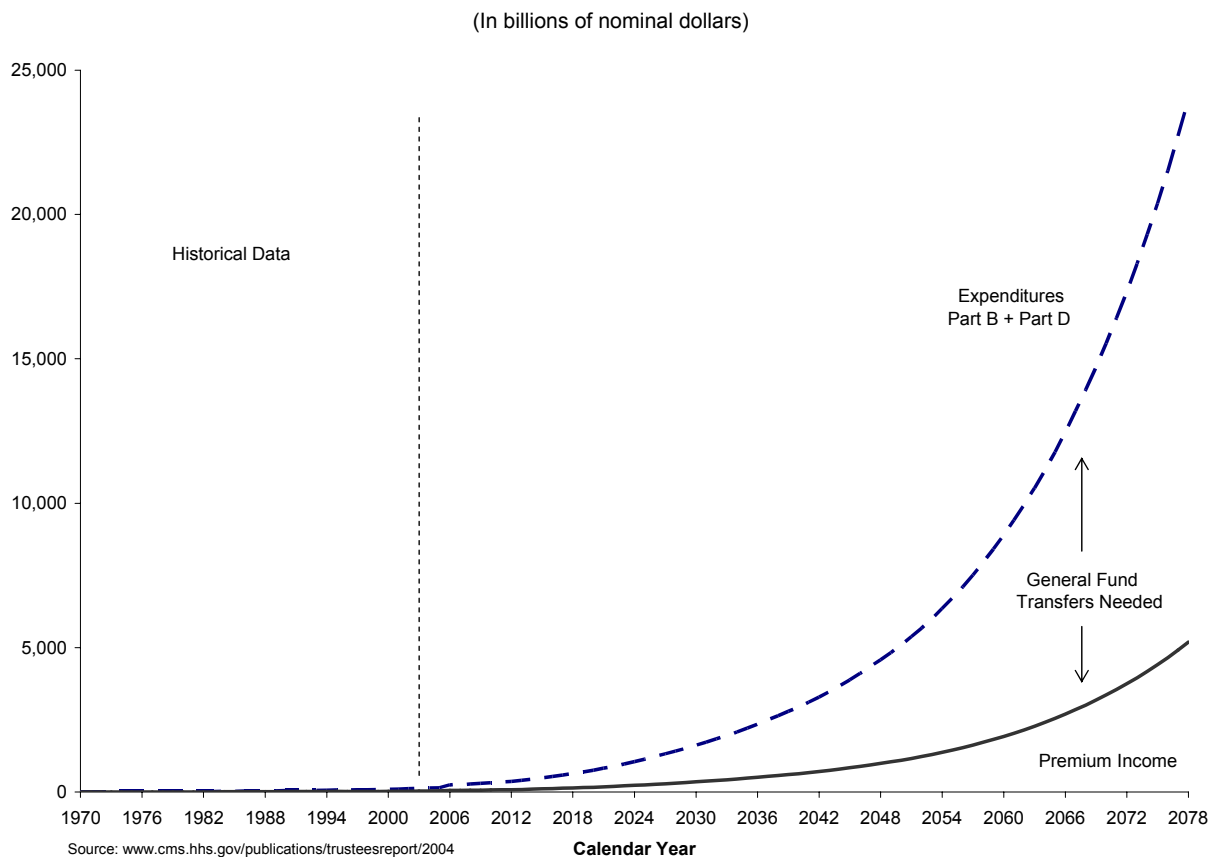
Medicare Part B and Part D Premium Income and Expenditures as a Percent of GDP. Chart 10 shows expenditures for the Supplementary Medical Insurance program over the next 75 years expressed as a percentage of GDP, providing a perspective on the size of the SMI program in relation to the capacity of the national economy to sustain it. In 2003, SMI expenditures were $120 billion, which was 1.1 percent of GDP. After 2005, this percentage is projected to increase steadily reaching 8.2 percent in 2078. This reflects growth in the volume and intensity of Medicare services provided per beneficiary throughout the projection period, including the prescription drug benefits, together with the effects of the baby boom retirement. Premium income grows from under 0.3 percent in 2003 to 1.8 percent of GDP in 2078, so the portion financed by general fund transfers to SMI is projected to be about 78 percent throughout the projection period.

**Chart 10—Medicare Part B and Part D Premium Income and Expenditures
as a Percent of GDP
1970-2078**

Source: www.cms.hhs.gov/publications/trusteesreport/2004

Calendar Year
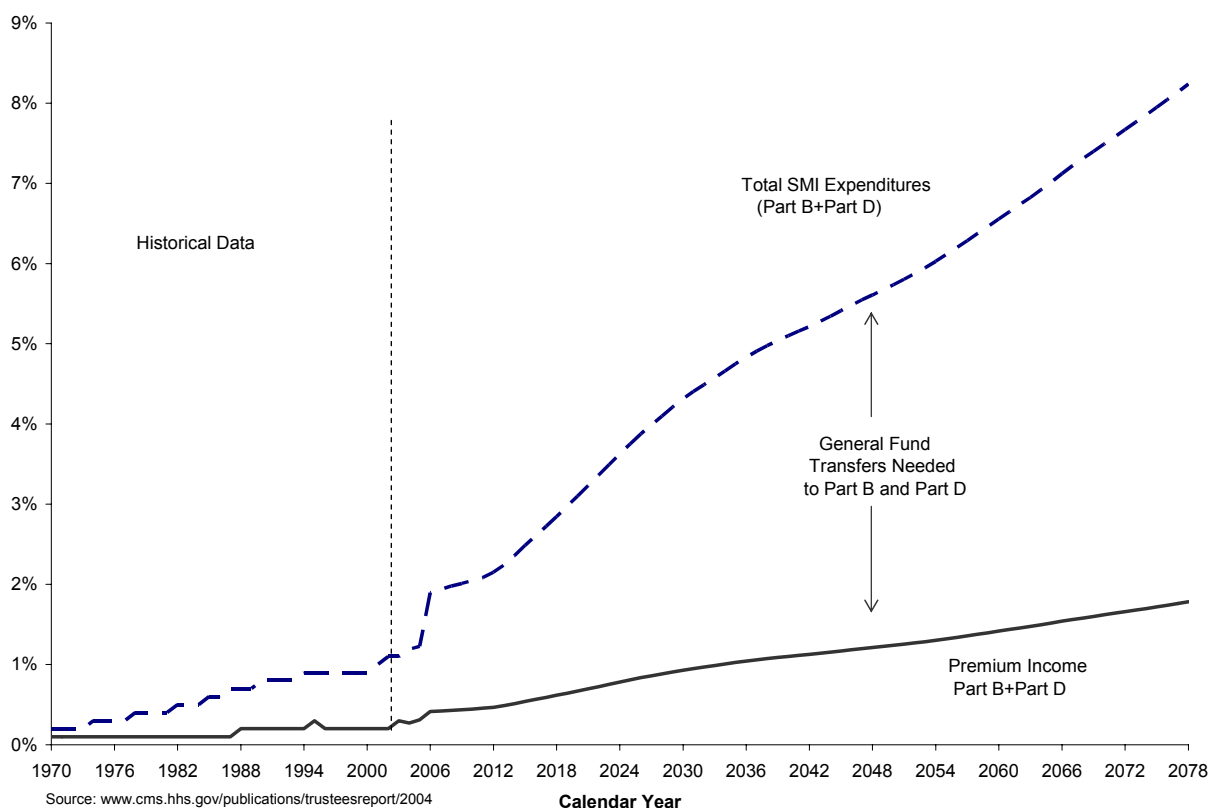
Medicare Sensitivity Analysis. This section presents estimates that illustrate the sensitivity of long-range cost and income long-range estimates for the Medicare program to changes in *selected individual assumptions*. As with the OASDI analysis, the intermediate assumption is used as the reference point, and one assumption at a time is varied. The variation used for each individual assumption reflects the levels used for that assumption in the low cost and high cost projections (see description of sensitivity analysis for OASDI).

Table 4 shows the effects of changing various assumptions on the present value of estimated HI expenditures in excess of income (the *shortfall* of income relative to expenditures in present value terms). The assumptions are shown in parentheses. Clearly, net HI expenditures are extremely sensitive to alternative assumptions about the growth in health care cost. For the low cost alternative, the slower growth in health costs causes the shortfall to drop from $8,492 billion to $2,990 billion, a 65 percent smaller shortfall. The high cost assumption results in a more than doubling of the shortfall, from $8,492 billion to $17,531 billion.

Variations in the next four assumptions in Table 4 result in relatively minor changes in net HI expenditures. The higher or lower fertility assumptions cause a less than 2 percent change in the shortfall relative to the

intermediate case. Higher (lower) real wage growth results in about an 8 percent (6 percent) change in the expenditure shortfall and CPI changes have very little effect on net HI expenditures. Similarly, net immigration has very little impact (the data for the low-cost alternatives for CPI and net immigration are the same by coincidence). Higher immigration increases the net shortfall modestly as higher payroll tax revenue is more than offset by higher medical care expenditures.

Table 4 also shows that net HI expenditures are 29 percent lower if the real interest rate is 3.7 percent rather than 3 percent and 44 percent higher if the real interest rate is 2.1 percent rather than 3 percent.

Table 4
Present Values of Estimated Medicare Part A Expenditures in Excess of Income Under Various Assumptions, 2004-2078

(In billions of dollars)

Assumption[1]	Low Cost	Intermediate	High Cost
Average annual growth in health costs[2]	2,990 (note 2)	8,492 (note 2)	17,531 (note 2)
Total fertility rate[3]..	8,350 (2.2)	8,492 (1.95)	8,639 (1.7)
Real wage differential..	7,974 (1.6)	8,492 (1.1)	9,155 (0.6)
CPI change..	8,316 (3.8)	8,492 (2.8)	8,525 (1.8)
Net immigration	8,299 (672,500)	8,492 (900,000)	8,525 (1,300,000)
Real interest rate	6,054 (3.7)	8,492 (3.0)	12,231 (2.1)

[1] The sensitivity of the projected HI net cashflow to variations in future mortality rates is also of interest. At this time, however, relatively little is known about the relationship between improvements in life expectancy and the associated changes in health status and per beneficiary health expenditures. As a result, it is not possible at present to prepare meaningful estimates of the Part A mortality sensitivity.
[2] Annual growth rate in the aggregate cost of providing covered health care services to beneficiaries. The low cost and high cost alternatives assume that costs increase 1 percent slower or faster, respectively, than the intermediate assumption, *relative to growth in taxable payroll*.
[3] The total fertility rate for any year is the average number of children who would be born to a woman in her lifetime if she were to experience the birth rates by age observed in, or assumed for, the selected year and if she were to survive the entire childbearing period.

Table 5 shows the effects of various assumptions about the growth in health care costs on the present value of estimated SMI (Medicare Parts B and D) expenditures in excess of income.[6] As with HI, net SMI expenditures are very sensitive to changes in the health care cost growth assumption. For the low cost alternative, the slower growth in health costs causes the shortfall in Part B to drop from $11,440 billion to $7,921 billion and in Part D from $8,119 to $5,703, about a 30 percent difference in each case. The high cost assumption results in a shortfall of $16,959 billion for Part B and $11,924 billion for Part D, just under a 50 percent increase in each case.

Table 5
Present Values of Estimated Medicare Parts B and D Future Expenditures Less Premium Income Under Various Health Care Cost Growth Assumptions, 2004-2078

(In billions of dollars)

Medicare Program[1]	Low Cost (Alternative I)	Intermediate (Alternative II)	High Cost (Alternative III)
Part B	7,921	11,440	16,959
Part D	5,703	8,119	11,924

[1] Annual growth rate is the aggregate cost of providing covered health care services to beneficiaries. The low cost and high cost alternatives assume that costs increase one percent slower or faster, respectively, than the intermediate assumption.

Source: Centers for Medicare & Medicaid Services.

Sustainability of Social Security and Medicare

75-Year Horizon

According to the 2004 Medicare Trustees Report, the HI Trust Fund is projected to remain solvent until 2019 and, according to the 2004 Social Security Trustees Report, the OASDI Trust Funds are projected to remain solvent until 2042. In each case, some general revenues must be used to satisfy the authorization of full benefit payments until the year of exhaustion. This occurs when the trust fund balances accumulated during prior years are needed to pay benefits which leads to a transfer from general revenues to the trust funds. Moreover, under current law, general fund transfers to the SMI Trust Fund will occur into the indefinite future and will continue to grow with the growth in health care expenditures.

The potential magnitude of future financial obligations under these three social insurance programs is therefore important from a unified budget perspective as well as for understanding generally the growing resource demands of the programs on the economy. A common way to present future cashflows is in terms of their *present value*. This approach recognizes that a dollar next year is worth less than a dollar today, because a dollar today could be saved and earn a year's-worth of interest (see footnote 1).

Table 6 shows the magnitudes of the primary expenditures and sources of financing for the three trust funds computed on an open-group basis for the next 75 years and expressed in present values. The data are consistent with the Statement of Social Insurance. For HI, revenues from the public are projected to fall short of total expenditures by $8,492 billion in present value terms.[7] From the budget or Governmentwide perspective, that is the additional amount needed in order to pay scheduled benefits over the next 75 years. From the trust fund perspective, the amount needed is smaller by the value of the existing trust fund balances (an asset to the trust fund account but an intragovernmental transfer to the overall budget). For SMI, revenues from the public are $11,440 billion less than total expenditures for the Part B account and $8,119 billion less for the Part D account, amounts that, from a budget perspective, will be needed to keep the program solvent for the next 75 years. From the trust fund perspective,

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[6] The SMI sensitivity analysis should cover the same set of assumptions as the HI sensitivity analysis. Next year's report is expected to satisfy this requirement.

[7] Interest income is not a factor in this table as dollar amounts are in present value terms.

however, the present values of total revenues and total expenditures for the SMI program are equal.[8] For OASDI, revenues from the public fall short of total expenditures by $5,229 billion in present value dollars and, from the trust fund perspective, by $3,699 billion.

From the Governmentwide perspective, the present value of the total resources needed for the Social Security and Medicare programs equals $33,280 billion. These resources needed from the budget are in addition to payroll taxes, benefit taxes, and premium payments. From the trust fund perspective, which counts the trust funds and the general revenue transfers to the SMI program as dedicated funding sources, in order to meet projected costs for the next 75 years the three programs will require additional resources of $11,910 billion in present value terms, beyond the $19,559 billion in present value of required general revenue transfers to the SMI program and $1,811 billion to honor the trust fund investments in Treasury securities.

Table 6
Present Values of Revenue and Cost Components of 75-Year Open Group Obligations HI, SMI, and OASDI

(In billions of dollars, as of January 1, 2004)

| | | SMI | | | |
	HI	Part B	Part D	OASDI	Total
Revenues from the Public:					
Taxes..	8,976	-	-	27,699	36,675
Premiums, State transfers.........	-	3,889	2,651	-	6,540
Total..	8,976	3,889	2,651	27,699	43,215
Total costs to the public	17,468	15,329	10,770	32,928	76,495
Net results for Government-wide (budget) perspective	(8,492)	(11,440)	(8,119)	(5,229)	(33,280)
Revenues from other Government accounts	-	11,440	8,119	-	19,559
Trust fund in 1/1/2004	256	24	-	1,531	1,811
Net results for trust fund perspective	(8,236)	24	-	(3,699)	(11,910)

Source: 2004 OASDI and Medicare Trustees' Reports.

Infinite Horizon

The 75-year horizon represented in Table 6 is consistent with the primary focus of the Social Security and Medicare Trustees' Reports. For the OASDI program, for example, an additional $5.2 trillion in present value will be needed above currently scheduled taxes to pay for scheduled benefits ($3.7 trillion from the trust fund perspective). Yet, a 75-year projection is incomplete. For example, when calculating unfunded obligations, a 75-year horizon includes revenue from some future workers but only a fraction of their future benefits. In order to provide a complete estimate of the long-run unfunded obligations of the programs, estimates should be extended to the infinite horizon. The open-group infinite horizon net obligation is the present value of all expected future program outlays less the present value of all expected future program tax and premium revenues. Such a measure is provided in Table 7 for the three trust funds represented in Table 6.

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[8] The SMI Trust Fund also has a very small amount of existing assets.

From the budget or Governmentwide perspective, the values in line 1 plus the values in line 4 of Table 7 represent the value of resources needed to finance each of the programs into the infinite future. The sums are shown in the last line of the table (also equivalent to adding the values in the second and fifth lines). The total resources needed for all the programs sums to nearly $74 trillion in present value terms. This need can be satisfied only through increased borrowing, higher taxes, reduced program spending, or some combination.

The second line shows the value of the trust fund at the beginning of 2004. For the HI and OASDI programs this represents, from the trust fund perspective, the extent to which the programs are funded. From that perspective, when the trust fund is subtracted, an additional $21.8 trillion and $10.4 trillion, respectively, are needed to sustain the programs into the infinite future. As described above, from the trust fund perspective, the SMI program is fully funded. The substantial gap that exists between premiums and expenditures in the SMI program ($23.2 trillion + $16.5 trillion) represents future general revenue obligations of the Federal budget.

In comparison to the analogous 75-year number in Table 6, extending the calculations beyond 2078 captures the full lifetime benefits and taxes and premiums of all current and future participants. The shorter horizon understates financial needs by capturing relatively more of the revenues from current and future workers and not capturing all of the benefits that are scheduled to be paid to them.

Table 7
Present Values of Expenditures Less Tax and Premium Revenue through the Infinite Horizon, HI, SMI, OASDI

(In trillions of dollars)	HI	SMI Part B	Part D	OASDI	Total
Present value of future expenditures less future taxes and premiums for current participants..............................	14.2	9.1	6.2	12.7	42.2
Less current trust fund	0.3	-	-	1.5	1.8
Equals net obligations for past and current participants..............................	14.0	9.1	6.2	11.2	40.5
Plus net obligations for future participants	7.8	14.1	10.3	(0.8)	31.4
Equals net obligations through the infinite future for all participants	21.8	23.2	16.5	10.4	71.9
Present value of future expenditures less the present value of future income over the infinite horizon (line 2 + line 5)...	22.1	23.2	16.5	11.9	73.7

Source: 2004 OASDI and Medicare Trustees' Reports.

Railroad Retirement, Black Lung, and Unemployment Insurance

Railroad Retirement

Railroad retirement pays full retirement annuities at age 60 to workers with 30 years of service. The program pays disability annuities based on total or occupational disability. It also pays annuities to spouses, divorced spouses, widow(er)s, remarried widow(er)s, surviving divorced spouses, children, and parents of deceased railroad workers. Medicare covers qualified railroad retirement beneficiaries in the same way as Social Security beneficiaries. The Railroad Retirement and Survivors Improvement Act of 2001 (RRSIA), enacted into law on December 21, 2001, liberalized benefits for 30-year service employees and their spouses, eliminated a cap on monthly benefits for retirement and disability benefits, lowered minimum service requirements from 10 to 5 years, and provided for increased benefits for widow(er)s.

The Railroad Retirement Board (RRB) and SSA share jurisdiction over the payment of retirement and survivor benefits. RRB has jurisdiction if the employee had at least 5 years (if performed after 1995) of railroad service. For survivor benefits, RRB requires that the employee's last regular employment before retirement or death be in the railroad industry. If a railroad employee or his or her survivors do not qualify for railroad retirement benefits, the RRB transfers the employee's railroad retirement credits to SSA.

Payroll taxes paid by railroad employers and their employees provide a primary source of income for the Railroad Retirement and Survivor Benefit program. By law, railroad retirement taxes are coordinated with Social Security taxes. Employees and employers pay tier I taxes at the same rate as Social Security taxes. Tier II taxes finance railroad retirement benefit payments that are higher than Social Security levels.

Other sources of program income include: financial interchanges with the Social Security and Medicare trust funds, earnings on investments, Federal income taxes on railroad retirement benefits, and appropriations (provided after 1974 as part of a phase out of certain vested dual benefits). The financial interchange is a significant source of income from a trust fund perspective. This transaction between railroad's Social Security Equivalent Benefit (SSEB) Account, the Federal Old-Age and Survivors Insurance Trust Fund, the Disability Insurance Trust Fund, and the Federal Hospital Insurance Trust Fund is intended to put the three trust funds in the same position they would have been had railroad employment been covered under the Social Security Act. From a Governmentwide (budget) perspective, the financial interchange is an intragovernmental transfer.

Investments are also an important source of income for the Railroad Retirement and Survivors Benefit program. Provisions in RRSIA modified the manner in which this income is generated. Amounts in the Railroad Retirement Account and the SSEB Account not needed to pay current benefits and administrative expenses are transferred to the National Railroad Retirement Investment Trust (NRRIT). NRRIT's Board[9] of seven trustees is empowered to invest trust assets in nongovernmental assets, such as equities and debt, as well as in Government securities. Prior to RRSIA, all investments were limited to Government securities.

The sole purpose of the NRRIT is to manage and invest railroad retirement assets. Since its inception, NRRIT has received $21.3 billion from RRB (including $19.2 billion in fiscal year 2003, pursuant to RRSIA) and returned $1.9 billion. During fiscal year 2004, the NRRIT made net transfers of $1.564 billion to the RRB to pay retirement benefits. Administrative expenses of the trust are paid out of trust assets.

Cashflow Projections

Economic and Demographic Assumptions. The economic assumptions include a cost-of-living increase of 3 percent, an interest rate of 8 percent, and a wage increase of 4 percent. The demographic assumptions include rates of mortality and total termination rates, remarriage rates for widows, retirement rates, and withdrawal rates. For details on the demographic assumptions and other assumptions, refer to the Railroad Retirement System Annual Report, June 2004 and the 22nd Actuarial Valuation of the Assets and Liabilities under the Railroad Retirement Acts as of December 31, 2001, with Technical Supplement.

The average railroad employment is assumed to be 218,000 in 2004. The employment assumption, based on a model developed by the Association of American Railroads, assumes that (1) passenger employment will remain at

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[9] The Board of Trustees is comprised of seven trustees, three selected by railroad labor unions and three by railroad companies. The seventh trustee is an independent trustee selected by the other six trustees. The trustees' terms are for 3 years and are staggered. RRSIA provides that on the initial Board, one each of the Labor and Management members would be selected for 3-year terms, one each for 2-year terms, and one each for a 1-year term. Thereafter, all terms are 3 years. The independent trustees' initial and succeeding terms are 3 years.

the level of 42,000 and (2) the employment base, excluding passenger employment, will decline at a constant 3 percent annual rate for 25 years, at a falling rate over the next 25 years, and remain level thereafter.

Nominal Income and Expenditures. Chart 11 shows, in nominal dollars, estimated railroad retirement income (excluding interest and financial interchange income) and expenditures for the period 2004-2078 based on the intermediate set of assumptions used in the Railroad Retirement Board's actuarial evaluation of the program. The estimates are for the open-group population, which includes all persons projected to participate in the Railroad Retirement program as railroad workers or beneficiaries during the period. Thus, the estimates include payments from, and on behalf of, those who will be employed by the railroads during the period as well as those already employed at the beginning of the period. They also include expenditures made to, and on behalf of, such workers during that period.

**Chart 11—Estimated Railroad Retirement Income
(Excluding Interest and Financial Interchange Income) and Expenditures
2004-2078**

(In billions of nominal dollars)

Source: Railroad Retirement Board
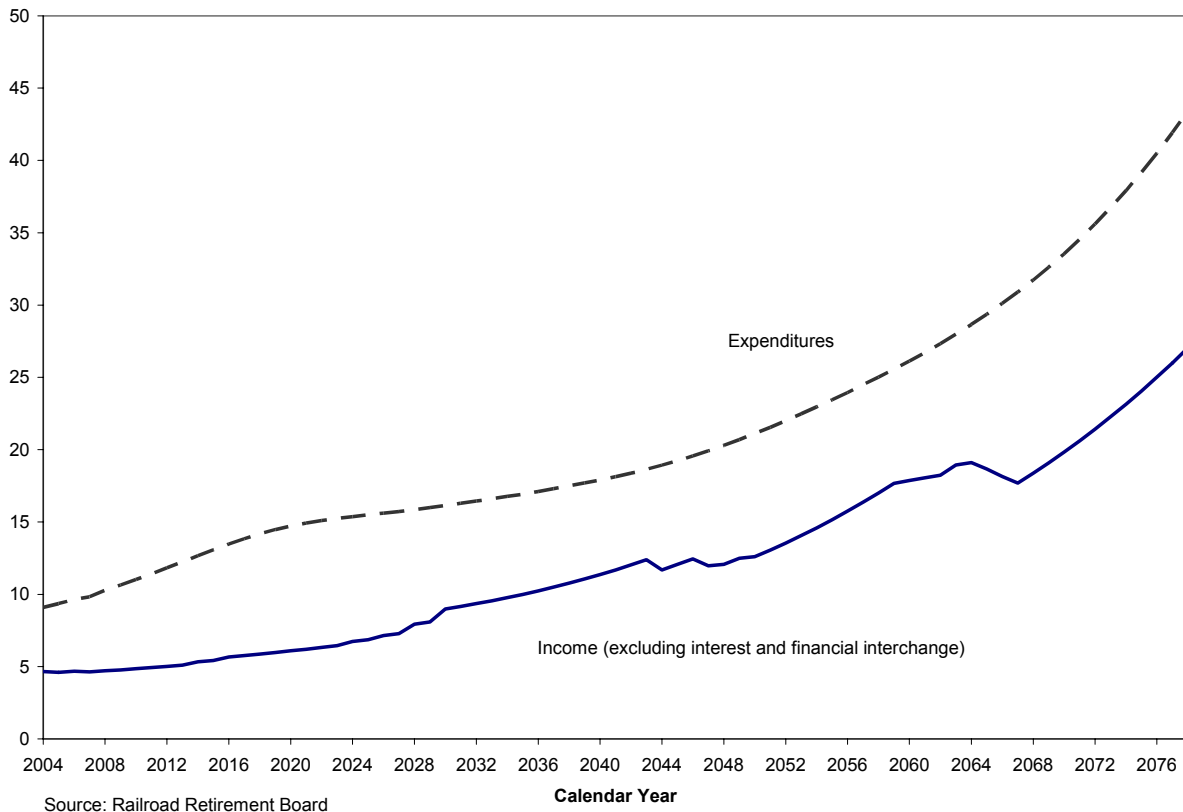
As Chart 11 shows, expenditures are expected to exceed tax income for the entire projection period. The imbalances continue to widen for the next 18 years (until 2022) but then begin to narrow for the subsequent 20 years due, in part, to increases in the tier II tax rate in 2028 and 2030. The imbalances widen after 2040 and again after 2050 due to reductions in tax rates.

Income and Expenditures as a Percent of Taxable Payroll. Chart 12 shows estimated expenditures and income as a percent of tier II taxable payroll. Tax rate changes are seen more clearly in this chart. The imbalances grow until about 2020 but then begin to decease steadily as expenditures fall and tax rates increase in 2028 and 2030. Tax rate reductions occur in 2044, 2047, 2048, and in several years after 2060.

Chart 12—Estimated Railroad Retirement Income
(Excluding Interest and Financial Interchange Income) and Expenditures
as a Percent of Tier II Taxable Payroll
2004-2078

Source: Railroad Retirement Board
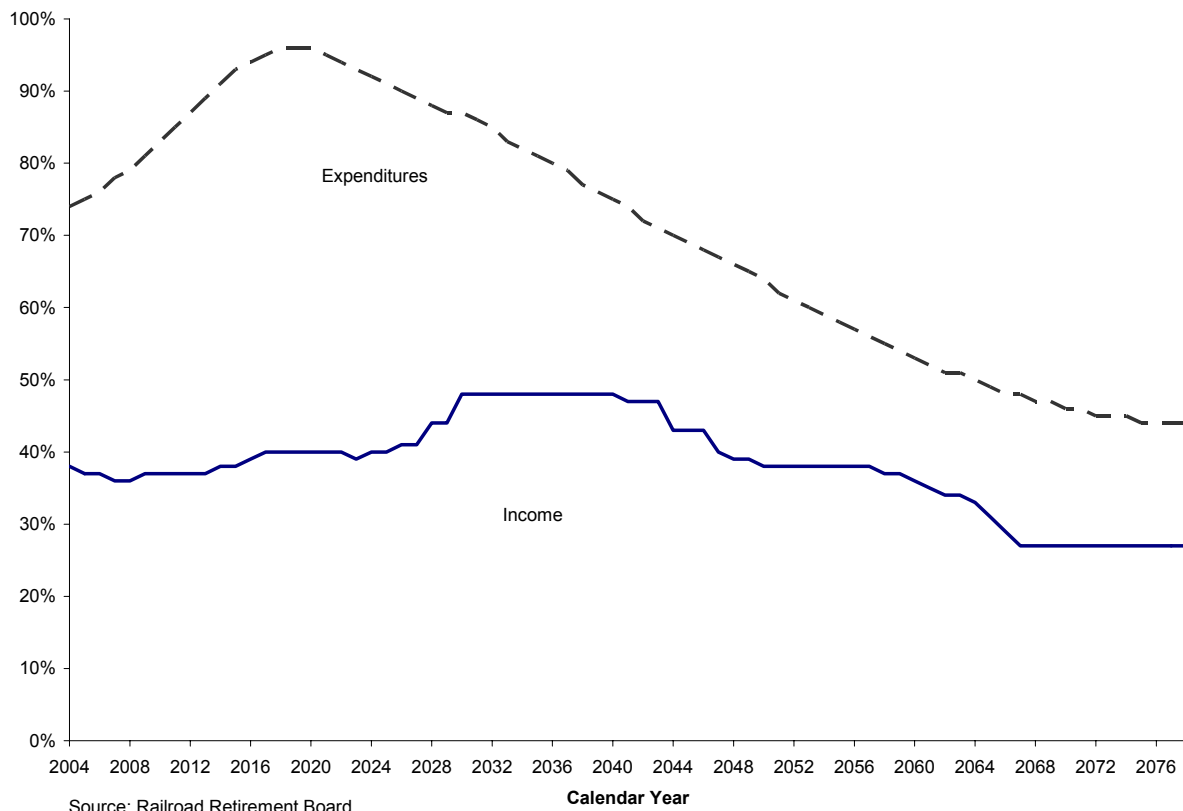
Sensitivity Analysis. Actual future income from railroad payroll taxes and other sources and actual future expenditures for scheduled benefits and administrative expenses will depend upon a large number of factors as mentioned above. Two crucial assumptions are employment growth and the interest rate. Table 8 shows the sensitivity of the shortfall in the railroad retirement program to variations in these two assumptions. The low-cost employment scenario has a 3.9 percent smaller shortfall of income to expenditures, and the high-cost scenario has a 6.1 percent higher shortfall. A higher discount rate reduces future values relative to a lower rate. As seen in the table, the shortfall is 29.6 percent lower if the interest rate is 12 percent rather than 8 percent and 75.9 percent higher when the interest rate is 4 percent rather than 8 percent.

Table 8
Present Values of Railroad Retirement Expenditures in Excess of Income Under Various Employment and Interest Rate Assumptions

(In millions of dollars)

Assumption	Low	Middle	High
Employment[1]	83,588 (1.5%)	86,974 (3.0%)	92,244 (4.5%)
Interest rate...................	61,223 (12%)	86,974 (8%)	153,014 (4%)

[1] The low and middle employment scenarios have passenger employment remaining at 42,000 and the remaining employment base declining at 1.5 percent and 3 percent, respectively, for the next 25 years. The high cost scenario has passenger employment declining by 500 per year until a level of 35,000 is reached with the remaining employment base declining by 4.5 percent per year.

Source: Railroad Retirement Board.

Sustainability of Railroad Retirement

Table 9 shows the magnitudes of the primary expenditures and sources of financing for the Railroad Retirement program computed on an open-group basis for the next 75 years and expressed in present values as of January 1, 2004. The data are consistent with the Statement of Social Insurances.

From a Governmentwide (budget) perspective, revenues are expected to fall short of expenditures by $87 billion. That is the present value of resources needed from the budget for the Railroad Retirement program. From a trust fund perspective, when the trust fund balance and the financial interchange are included, the combined balance of the NRRIT, the Railroad Retirement Account, and the SSEB Account show a slight surplus.

Table 9
Present Values of 75-Year Projections of Revenues and Expenditures for the Railroad Retirement Program[1,2]

(In billions of present-value dollars as of January 1, 2004)

Estimated Future Income (Excluding Interest)[3] Received from or on Behalf of:
Current participants who have attained retirement age... 3.9
Current participants not yet having attained retirement age..................................... 36.9
Those expected to become participants... 39.1
All participants.. 79.9

Estimated Future Expenditures:[4]
Current participants who have attained retirement age... 81.1
Current participants not yet having attained retirement age..................................... 71.8
Those expected to become participants... 13.9
All participants.. 166.8

Net obligations from budget perspective (expenditures less income).............. 87.0

Railroad Retirement program assets (mostly investments stated at market)[5].......... 26.3

Financial Interchange from Social Security Trust 61.1

Net Obligations from Trust Fund Perspective .... (0.4)

[1] Represents combined values for the Railroad Retirement Account, SSEB Account, and NRRIT, based on middle employment assumption.
[2] The data used reflect the provisions of RRSIA of 2001.
[3] Future income (excluding interest) includes tier I taxes, tier II taxes, and income taxes on benefits.
[4] Future expenditures include benefits and administrative expenditures.
[5] The value of the fund reflects the 8 percent interest rate assumption. The RRB uses the relatively high rate due to investments in private securities.

Note: Detail may not add to totals due to rounding. Employee and beneficiary status are determined as of 1/1/2003, whereas present values are as of 1/1/2004.

Black Lung

The Black Lung Disability Benefit Program provides compensation for medical and survivor benefits for eligible coal miners who are disabled due to pneumoconiosis (black lung disease) arising out of their coal mine employment. The U.S. Department of Labor (DOL) operates the Black Lung Disability Benefit Program. The Black Lung Disability Trust Fund (BLDTF) provides benefit payments to eligible coal miners disabled by pneumoconiosis when no responsible mine operator can be assigned the liability. The beneficiary population has been declining as the incidence of black lung disease has fallen, and the group of miners affected by the disease (and their widows) has been dying at a more rapid rate than new awards have been made.

Excise taxes on coal mine operators, based on the sale of coal, is the primary source of financing black lung disability payments and related administrative costs. Though excise tax revenues currently exceed costs (and are expected to in the future), that was not always the case. The Black Lung Benefits Revenue Act provides for repayable advances to the BLDTF from the general fund of the Treasury, in the event that BLDTF resources are not adequate to meet program obligations. During earlier years of the program, general revenues were needed to pay for cash shortfalls in the program. Black Lung Disability Trust Fund financial statements continue to report a balance payable and interest paid to the general fund.

On September 30, 2004, total liabilities of the BLDTF exceeded assets by $8.7 billion. This deficit fund balance represented the accumulated shortfall of excise taxes necessary to meet benefit payment and interest

expenses. This shortfall was financed by repayable advances (with interest) to the BLDTF. Outstanding advances on September 30, 2004, were $8.7 billion, bearing interest rates ranging from 5.375 to 13.875 percent. Excise tax revenues of $566 million, benefit payment expense of $344.3 million, and interest expense of $650.6 million were recognized for the year ended September 30, 2004.

Chart 13 shows projected black lung expenditures (excluding interest payments) and excise tax collections for the period 2005-2040. The significant assumptions used in the projections are coal production estimates, the tax rate structure, the number of beneficiaries, life expectancy, and medical costs. Analysts project that a scheduled reduction in taxes on coal sales will decrease cash inflows by 50 percent between the years 2013 to 2015. After 2015, cash surpluses continue to widen due to a declining beneficiary population and increasing revenues.

Chart 13—Estimated Black Lung Total Income and Expenditures (Excluding Interest) 2005-2040

(In millions of nominal dollars)
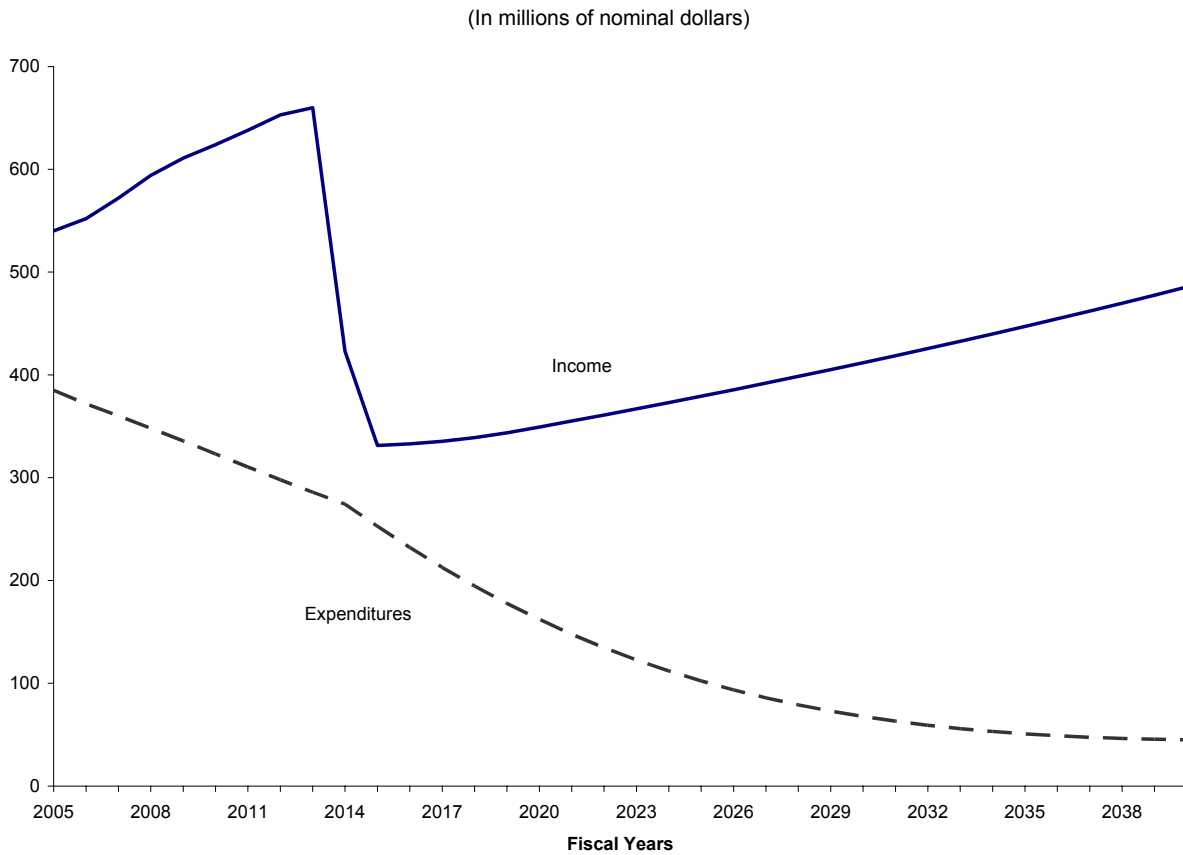

Source: Department of Labor

Table 10 shows present values of 36-year projections of expenditures and revenues for the Black Lung program computed as of September 30, 2004, using a discount rate of 5.25 percent. From a Governmentwide (budget) perspective, the present value of expenditures is expected to be less than the present value of income by $4.1 billion (a surplus). From a trust fund perspective, a large balance ($8.7 billion) is owed to the general fund. From that perspective, when that accumulated balance is combined with the cashflow surplus, the program shows a negative balance of $4.6 billion in present value dollars.

Table 10
Present Values of 36-Year Projections of Revenues and Expenditures for the Black Lung Program

(In billions of present value dollars, as of September 30, 2004)

Estimated future tax income	7.7
Estimated future expenditures	3.6
Net obligations from budget perspective (expenditures less income)	(4.1)
Accumulated balance due general fund	8.7
Net obligations from trust fund perspective	4.6

Source: Department of Labor. The projections were based on data from the 2004 Mid-Session Review.

Unemployment Insurance

The Unemployment Insurance Program was created in 1935 to provide temporary partial wage replacement to unemployed workers who lose their jobs. The program is administered through a unique system of Federal and State partnerships established in Federal law but administered through conforming State laws by State agencies. DOL interprets and enforces Federal law requirements and provides broad policy guidance and program direction, while program details such as benefit eligibility, duration, and amount of benefits are established through individual State unemployment insurance statutes and administered through State unemployment insurance agencies.

The program is financed through the collection of Federal and State unemployment taxes that are credited to the Unemployment Trust Fund (UTF) and reported as Federal tax revenue. The fund was established to account for the receipt, investment, and disbursement of unemployment taxes. Federal unemployment taxes are used to pay for Federal and State administration of the Unemployment Insurance Program, veterans' employment services, State employment services, and the Federal share of extended unemployment insurance benefits. Federal unemployment taxes also are used to maintain a loan account within the UTF, from which insolvent State accounts may borrow funds to pay unemployment insurance benefits.

Chart 14 shows the projected cash contributions and expenditures over the next 10 years under expected economic conditions (described below). The significant assumptions used in the projections include total unemployment rates, civilian labor force levels, percent of unemployed receiving benefits, total wages, distribution of benefit payments by State, State tax rate structures, State taxable wage bases, and interest rates on UTF investments. These projections, excluding interest earnings, indicate net cash inflows for the next 5 years. There is a crossover back to small net outflows in fiscal year 2010. From a trust fund perspective, the Unemployment Fund will have to rely on interest earnings to keep growing.

Chart 14—Estimated Unemployment Fund Cashflow
Using Expected Economic Conditions
2005-2014

(In billions of nominal dollars)

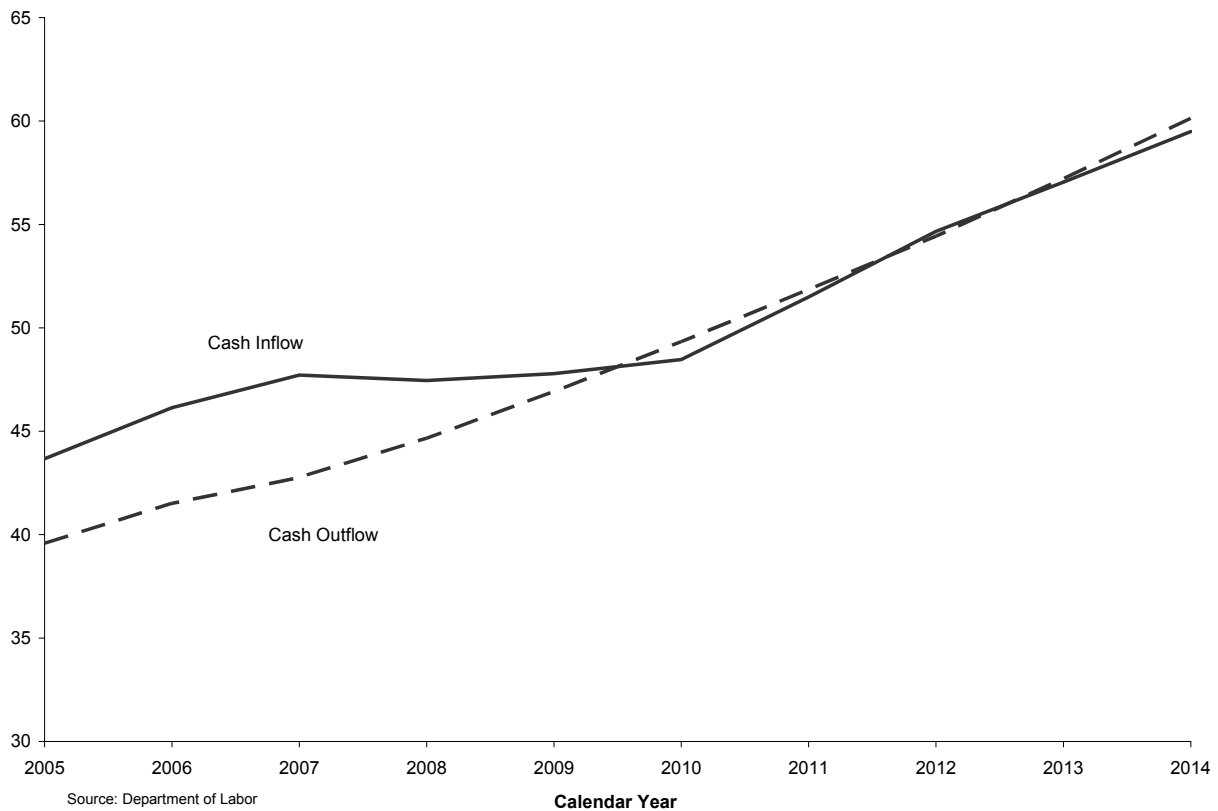
Source: Department of Labor

Calendar Year

Table 11 shows present values of 10-year projections of revenues and expenditures for the Unemployment Insurance program using a discount rate of 5.03 percent, the average of the interest rates underlying the 10-year projections. Three sets of numbers are presented in order to show the effects of varying economic conditions as reflected in different assumptions about the unemployment rate. For expected economic conditions, the estimates are based on an unemployment rate of 5.35 percent during fiscal year 2005, decreasing to 5.10 percent in fiscal year 2008 and thereafter. Under the mild recessionary scenario, the unemployment rate peaks at 7.43 percent in fiscal year 2007 and declines gradually until reaching 5.1 percent in 2013. Finally, under the deep recession scenario, the unemployment rate is assumed to peak at 10.15 percent in 2008 and gradually fall to 6.4 percent by the end of the projection period.

Each scenario uses an open group that includes current and future participants of the Unemployment Insurance Program. Table 11 shows that, as economic conditions worsen, while tax income is projected to increase as higher layoffs result in higher employer taxes, benefit outlays increase much faster. From the Governmentwide (budget) perspective, under expected conditions, the present value of income exceeds the present value of expenditures by $14 billion. From the same perspective, under a deep recession scenario, the present value of expenditures exceeds the present value of income by $37 billion. From a trust fund perspective, the program has more than $45 billion in assets. When combined with the present value of net cash income under expected economic conditions, the program has a surplus of $59 billion.

Table 11
Present Values of 10-Year Projections of Revenues and Expenditures for Unemployment Insurance Under Three Alternative Scenarios for Economic Conditions

(In billions of present value dollars, as of January 1, 2005)

	Economic Conditions		
	Expected	Mild Recession	Deep Recession
Future cash income	383.6	423.9	470.9
Future expenditures...	369.5	416.6	507.6
Net obligations from budget perspective (expenditures less income)....................................	(14.1)	(7.3)	36.7
Trust fund assets	45.2	45.2	45.2
Net obligations from trust fund perspective	(59.3)	(52.5)	8.5

Source: Data for the present value calculations are from the Department of Labor; the calculations were done by the Department of the Treasury.

Unemployment Trust Fund Solvency

Each State's accumulated UTF net assets or reserve balance should provide a defined level of benefit payments over a defined period. To be minimally solvent, a State's reserve balance should provide for 1 year's projected benefit payment needs based on the highest levels of benefit payments experienced by the State over the last 20 years. A ratio of 1.0 or greater prior to a recession indicates a State is minimally solvent. States below this level are vulnerable to exhausting their funds in a recession. States exhausting their reserve balance must borrow funds from the Federal Unemployment Account (FUA) to make benefit payments. The Missouri, New York, and Minnesota State accounts had loans payable to FUA at the end of fiscal year 2004. In addition, Texas, Illinois, and North Carolina had outstanding debts to other sources. During periods of high-sustained unemployment, balances in the FUA may be depleted. In these circumstances, FUA is authorized to borrow from the Treasury general fund.

Chart 15 presents the State by State results of this analysis as of September 30, 2004. As the table illustrates, 32 State funds were below the minimal solvency ratio on September 30, 2004.

Chart 15—Unemployment Trust Fund Solvency as of September 30, 2004

Years of benefit payments held in reserve
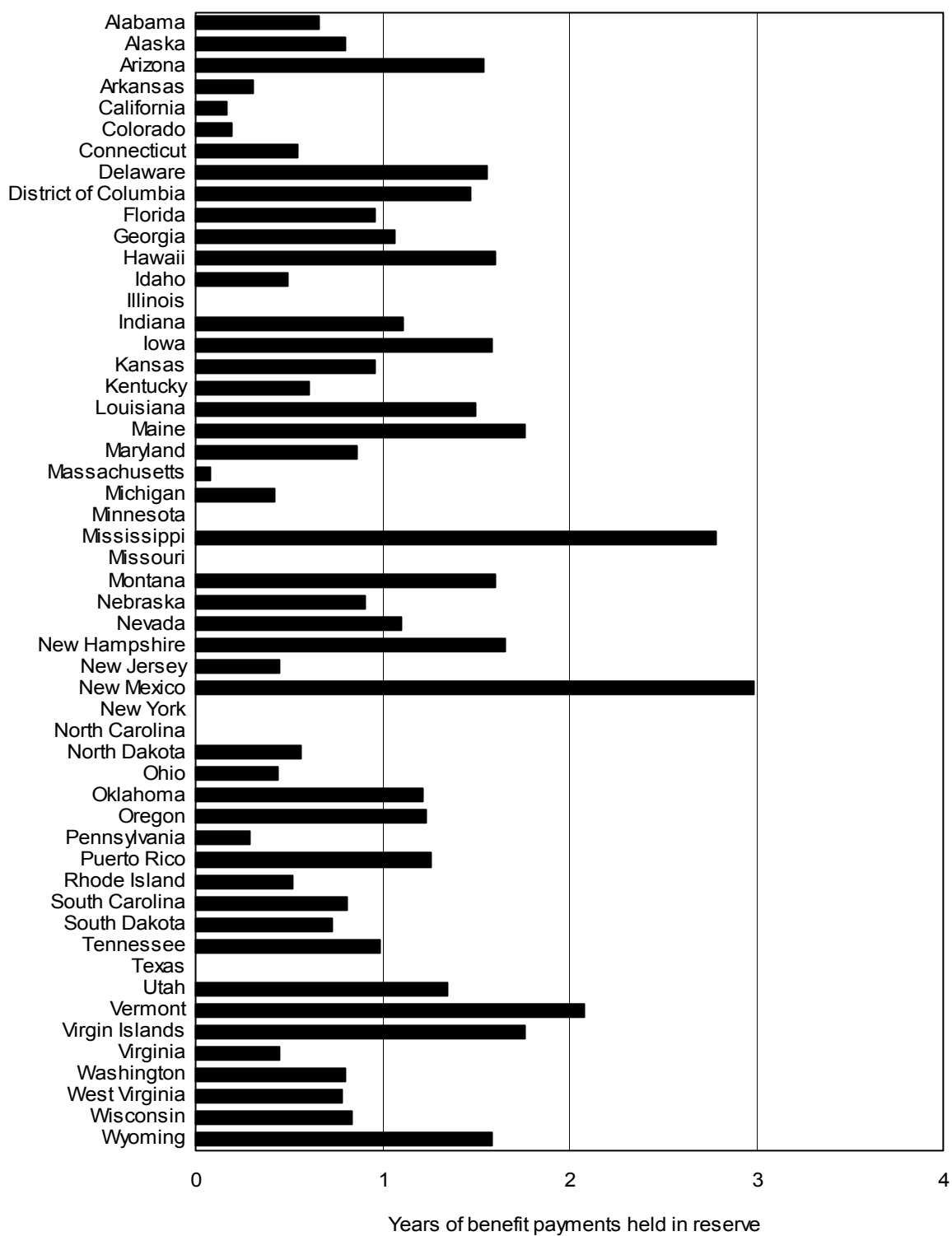
Stewardship Assets

The Government holds stewardship assets for the benefit of the Nation. Because the Government has been entrusted with, and made accountable for, these resources and responsibilities, they are recognized in this *Financial Report*.

When acquired, stewardship assets are generally treated as expenses in the financial statements. This section provides more detailed stewardship information on these resources to highlight their long-term benefit and to demonstrate accountability. This information facilitates the understanding of the operations and financial condition of the Government.

Stewardship Land

Stewardship land refers to federally-owned land that is set aside for the use and enjoyment of present and future generations and land on which military bases are located. Except for military bases, this land is not used or held for use in general Government operations. Stewardship land is land that the Government does not expect to use to meet its obligations, unlike the assets listed in the balance sheets. Stewardship land is measured in nonfinancial units such as acres of land and lakes, miles of parkways, and miles of wild and scenic rivers. Examples of stewardship land include national parks, national forests, wilderness areas, and land used to enhance ecosystems to encourage animal and plant species and to conserve nature. This category excludes lands administered by the Bureau of Indian Affairs and held in trust.

Most stewardship land managed by the Government was once part of the 1.8 billion acres of public domain land acquired between 1781 and 1867. Stewardship land accounts for 28 percent of the current U.S. landmass. Stewardship land acquired totaled $312.5 million and $329.6 million for the years ended September 30, 2004, and 2003, respectively. Table 10 depicts the stewardship land owned by the Government and administered by the Department of the Interior (DOI), the Department of Defense (DOD), and the Department of Agriculture (USDA). Detailed information concerning stewardship land can be obtained in the financial statements of DOI, DOD, and USDA.

Table 10
United States Government Stewardship Land as of September 30

Agency	Predominate Use	Millions of Acres		Percentage	
		2004	**2003**	**2004**	**2003**
Bureau of Land Management........	Public land	261.8	262.0	40.5	39.9
U.S. Forest Service	National forest system	192.9	192.5	29.8	29.3
U.S. Fish and Wildlife Service.......	National wildlife refuge system	90.3	95.9	14.0	14.6
National Park Service....................	National park system	79.0	84.2	12.2	12.8
Department of Defense.................	Defense facilities	16.7	16.7	2.6	2.5
Bureau of Reclamation..................	Water, power, and recreation	5.7	5.9	0.9	0.9
Total acres		646.4	657.2	100.0	100.0

Heritage Assets

Heritage assets are Government-owned assets that have one or more of the following characteristics:
- Historical or natural significance.
- Cultural, educational, or artistic importance.
- Significant architectural characteristics.

The cost of heritage assets often is not determinable or relevant to their significance. Like stewardship land, the Government does not expect to use these assets to meet its obligations. The most relevant information about heritage assets is nonfinancial. The public entrusts the Government with these assets and holds it accountable for their preservation. Examples of heritage assets include Mount Rushmore National Memorial, Yosemite National Park, and museum objects on display at the Smithsonian Institution. Other examples of heritage assets include the Declaration of Independence, the U.S. Constitution, and the Bill of Rights preserved by the National Archives. Also included are national monuments/structures such as the Vietnam Veterans Memorial, the Jefferson Memorial, and the Washington Monument, as well as the Library of Congress. Many other sites such as battlefields, historic structures, and national historic landmarks are placed in this category, as well.

Some heritage assets are used both to remind us of our heritage and for day-to-day operations. These assets are referred to as multi-use heritage assets. One typical example is the White House. The cost of acquisition, betterment or reconstruction of all multi-use heritage assets is capitalized as general property, plant, and equipment and is depreciated.

The following discussion of the Government's heritage assets is not all-inclusive. Rather, it highlights significant heritage assets reported by Federal agencies.

The Government classifies heritage assets into three broad categories:
- Collection-type.
- Natural.
- Cultural.

Collection-type heritage assets include objects gathered and maintained for museum and library collections. Natural heritage assets include national wilderness areas, wild and scenic rivers, natural landmarks, forests and grasslands. Cultural heritage assets include historic places and structures, memorials and monuments, national cemeteries and archeological sites.

Collection-Type Heritage Assets

The Smithsonian Institution holds some of the most prominent Federal museum collections. The Smithsonian acquires, protects, and preserves approximately 142 million individual objects for public exhibition, education, and research.

Similarly, the Library of Congress holds the world's largest library collection, comprising more than 130.2 million items. The Library of Congress receives two copies of every book, pamphlet, map, print, photograph, and piece of music registered for copyright in the United States.

The National Archives holds about 3.1 million cubic feet of records. These records ensure ready access to essential information documenting the rights of citizens, the actions of Federal officials, and the effects of those actions on the national experience. These records include text and legislative records; cartographic and architectural records; motion picture, sound, and video records; and still pictures and graphics. The National Archives also maintains historically important documents such as the U.S. Constitution and the Louisiana Purchase Treaty.

Collection-type heritage assets acquired totaled $19 million and $21.2 million for the years ended September 30, 2004, and 2003, respectively.

Natural Heritage Assets

Congress has designated several wilderness areas to preserve their natural conditions. DOI manages approximately 70.7 million acres of these wilderness areas comprised of almost 67 percent of the Nation's more than 105 million wilderness acres. The Cebolla Wilderness in New Mexico is one such area.

The national wild and scenic rivers system includes protected free-flowing rivers. The Government protects these areas because of their fish and wildlife, or for their scenic, recreational, geologic, historic, or cultural value. DOI manages 52 percent of these 11,314 river miles, including the Bluestone National Scenic River in West Virginia.

The Government also sets aside natural landmarks that exemplify a region's natural characteristics. The U.S. Fish and Wildlife Service manages 9 national historic landmarks, the Bureau of Land Management manages 21 natural historic landmarks, and the National Park Service manages 177 national natural landmarks, such as the Grand Coulee Gorge in Washington State.

The U.S. Forest Service manages 155 national forests and 20 national grasslands on more than 192 million acres of public land. These areas encompass significant heritage resources. Examples include the White Mountain National Forest in New Hampshire and the Thunder Basin National Grassland in Wyoming.

Natural heritage assets acquired totaled $199.5 million and $263.1 million for the years ended September 30, 2004, and 2003, respectively.

Any acreage cited above for natural heritage assets, such as wilderness areas, are also included in the acreage cited in the Stewardship Land section.

Cultural Heritage Assets

The National Register of Historic Places lists historic sites and structures. This is America's official list of cultural resources worthy of preservation. Official properties include districts, sites, buildings, structures, and objects significant to American history. It also includes significant architectural, archaeological engineering, and cultural properties. Forest Service land encompasses 2,834 such properties.

The Nation's monuments and memorials include the Washington Monument, the Vietnam Veterans Memorial, the World War II Memorial (new), and the Jefferson Memorial in Washington, D.C. The National Park Service manages these. In addition, the American Battle Monuments Commission administers, operates, and maintains 24 permanent American Military Cemeteries on foreign soil and 29 stand-alone memorials, monuments, and markers around the world. This includes the Belleau Wood Marine Monument in France.

Archeological and historical sites contain the remains of human activity. DOI manages numerous archaeological sites. The National Park Service manages approximately 60,855 archeological and historical sites; the Bureau of Land Management, the U.S. Fish and Wildlife Service and the Bureau of Reclamation manage approximately 285,183 archaeological and historical properties. The ancient earthen mounds at the Hopewell Culture National Historic Site in Ohio are a notable example.

National cemeteries include the Arlington National Cemetery in Virginia and the Fort Logan National Cemetery in Colorado. The Department of the Army (Army) manages the Arlington National Cemetery. The Department of Veterans Affairs (VA) manages Fort Logan National Cemetery and other cemeteries.

Stewardship Investments

Stewardship investments focus on Government programs aimed at providing long-term benefits by improving the Nation's productivity and enhancing economic growth. These investments can be provided through direct Federal spending or grants to State and local governments for certain education and training programs, research and development, and federally financed but not federally-owned property, such as bridges and roads. When incurred, these investments are included as expenses in determining the net cost of operations.

Non-Federal Physical Property

The Government makes grants and provides funds for the purchase, construction, and/or major renovation of State and local government physical properties. Cost for non-Federal physical property programs are included as expenses in the Statements of Net Cost and are reported as investments in Table 11. They are measured on the same accrual basis of accounting used in the *Financial Report* statements. The amounts reported in fiscal year 2003 for investments in prior years (fiscal years 2003-2000) have been restated because agencies are continuously reviewing, correcting, and updating this data.

Table 11
Stewardship Investments
for the Years Ended September 30

(In billions of dollars)	Fiscal Year 2004	Restated Fiscal Year 2003	Restated Fiscal Year 2002	Restated Fiscal Year 2001	Restated Fiscal Year 2000
Investments in non-Federal physical property	45.3	46.8	47.6	37.9	38.9
Investments in human capital	77.1	71.3	54.7	44.3	36.8
Research and development:					
Investments in basic research	32.9	24.6	22.8	18.9	18.2
Investments in applied research	23.9	21.5	21.6	17.5	16.3
Investments in development	60.2	48.3	44.4	39.4	38.1
Total investments	239.4	212.5	191.1	158.0	148.3

Human Capital

The Government runs several programs that invest in human capital. Those investments go toward increasing and maintaining a healthy economy by educating and training the general public. Costs do not include training expenses for Federal workers.

Research and Development

Federal investments in research and development comprise those expenses for basic research, applied research, and development that are intended to increase or maintain national economic productive capacity or yield other future benefits.

- Investments in basic research are for systematic studies to gain knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind.
- Investments in applied research are for systematic studies to gain knowledge or understanding necessary for determining the means by which a recognized and specific need may be met.
- Investments in development are the systematic use of the knowledge and understanding gained from research for the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes.

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